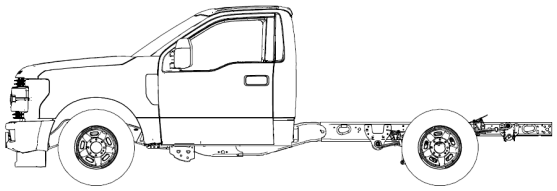
DO NOT DESTROY: THIS MANUAL IS REQUIRED BY LAW. KEEP UNTIL THE VEHICLE IS COMPLETED BY THE FINAL STAGE MANUFACTURER.

2021
SUPER DUTY F-SERIES
INCOMPLETE VEHICLE MANUAL

Incomplete Vehicle Types For This Manual



SUPER DUTY F-SERIES CHASSIS CAB

August 2020

▽ MC34-19A268-AA

U.S. & CANADIAN MOTOR VEHICLE SAFETY STANDARDS

(Application By Vehicle Type—For Reference)

Standard Number	Title of Standard	Vehicle Type		Equipment (1)
		Truck	MPV	
101	Controls and Displays	X	X	
102	Transmission Shift Lever Sequence, Starter Interlock and Transmission Braking Effect	X	X	
103	Windshield Defrosting and Defogging Systems	X	X	
104	Windshield Wiping and Washing Systems	X	X	
105	Hydraulic and Electric Brake Systems	X	X	
106	Brake Hoses	X	X	X
108	Lamps, Reflective Devices and Associated Equipment	X	X	X
110	Tire Selection and Rims and Motor Home / Recreation Vehicle Trailer Load Carrying Capacity Information for Motor Vehicles with a GVWR of 4,536 Kilograms (10,000 Pounds) or Less	X(2)	X(2)	X(2)
111	Rear Visibility	X	X	
113	Hood Latch System	X	X	
114	Theft Protection and Rollaway Prevention	X(2)	X(2)	
115	Vehicle Identification Number (Canada only)	X	X	
116	Motor Vehicle Brake Fluids	X	X	X
118	Power-Operated Window, Partition, and Roof Panel Systems	X(2)	X(2)	
119 (6)	New Pneumatic Tires for Motor Vehicles with a GVWR of More Than 4,536 Kilograms (10,000 pounds) and Motorcycles			X(3)
120	Tire Selection and Rims and Motor Home / Recreation Vehicle Trailer Load Carrying Capacity Information for Motor Vehicles with a GVWR of More Than 4,356 Kilograms (10,000 Pounds)	X(3)	X(3)	X(3)
124	Accelerator Control Systems	X	X	
126	Electronic Stability Control Systems	X(2)	X(2)	X(2)
138	Tire Pressure Monitoring Systems	X(2)	X(2)	X(2)
139	New Pneumatic Radial Tires for Light Vehicles			X(2)
201	Occupant Protection in Interior Impact	X(2)	X(2)	
202a	Head Restraints	X(2)	X(2)	
203	Impact Protection for the Driver from the Steering Control System	X(2)	X(2)	
205	Glazing Materials	X	X	X
206	Door Locks and Door Retention Components	X	X	
207	Seating Systems	X	X	
208	Occupant Crash Protection	X(4)(5)	X(4)(5)	X
209	Seat Belt Assemblies	X	X	X
210	Seat Belt Assembly Anchorages	X	X	X
212	Windshield Mounting	X(2)	X(2)	
213	Child Restraint Systems (U.S. only)	X	X	X
213.4	Built-In Restraint Systems and Built-In Booster Seats (Canada only)	X	X	
214	Side Impact Protection	X(2)	X(2)	
216a	Roof Crush Resistance	X(2)	X(2)	
219	Windshield Zone Intrusion	X(2)	X(2)	
226	Ejection Mitigation	X(2)	X(2)	X
301	Fuel System Integrity	X(2)	X(2)	
301.1	LPG Fuel System Integrity (Canada only)	X	X	
301.2	CNG Fuel System Integrity (Canada only)	X	X	
302	Flammability of Interior Materials	X	X	
303	Fuel System Integrity of Compressed Natural Gas Vehicles (U.S. only)	X(2)	X(2)	
304	Compressed Natural Gas Fuel Container Integrity (U.S. only)	X	X	
305	Electric-Powered Vehicles: Electrolyte Spillage and Electrical Shock Protection	X	X	X
403	Platform Lift Systems for Motor Vehicles			X
404	Platform Lift Installations in Motor Vehicles	X	X	
PART 393.67	Parts and Accessories Necessary for Safe Operation – Liquid Fuel Tanks	X	X	X
PART 565 / 565.13	Vehicle Identification Number (VIN) Requirements (U.S. only)	X	X	
PART 567	Certification (Label Content & Location)	X	X	
1106	Noise Emissions (Canada only)	X	X	

1) *This column identifies Standards that have equipment/component requirements.*
2) *Applicable to vehicles with a gross vehicle weight rating (GVWR) of 4536 kg [10,000 lb.] or less.*
3) *Applicable to vehicles with a gross vehicle weight rating (GVWR) greater than 4536 kg [10,000 lb.].*
4) *Injury criteria are applicable to vehicles with a GVWR of 3856 kg [8500 lb.] or less and an unloaded vehicle weight (UVW) of 2495 kg [5500 lb.] or less except, in the United States, walk-in van-type trucks and vehicles designed to be sold exclusively to the U.S. Postal Service and, in Canada, vehicles manufactured for operation by persons with disabilities.*
5) *Applicable to vehicles with GVWR of 3856 kg [8500 lb.] or less, (Canada only: UVW of 2495 kg [5500 lbs.] or less), and to buses, including school bus, with a GVWR of 4536 kg [10,000 lb.] or less.*
6) *Canadian 119 requirements are found in the Motor Vehicle Tire Safety Standards*

INTRODUCTION

Information in this manual is furnished pursuant to United States and Canadian safety regulations or, in some cases where the information is not required by regulation, is furnished for the convenience of intermediate and final stage vehicle manufacturers. Incomplete vehicles manufactured for sale or importation into the U.S. are specially equipped for the United States. The descriptions and statements contained in this manual relate only to motor vehicle safety standards issued under the National Traffic and Motor Vehicle Safety Act of 1966 as amended.

Incomplete vehicles manufactured for sale or importation into Canada are specially equipped for Canada. This vehicle conforms to the applicable Canadian Motor Vehicle Safety Standards (CMVSS) on the date of manufacture printed on the cover of this manual. Requirements unique to vehicles for use in Canada are identified in the “Statements of Conformity” and the “Canadian Vehicles” sections of this manual.

The “Emission Certification Information” section of this manual contains information regarding conformity to emission regulations of the United States, Canada, and the State of California, and to fuel economy regulations of the United States.

This manual should not be relied upon with respect to compliance with any regulation of the Federal Highway Administration or regulations issued pursuant to the Occupational Safety and Health Act (OSHA) or any other Federal, state, provincial, or local regulations governing the performance or construction of motor vehicles (except for those requirements shown in the “Emissions Certification Information” section of this manual under the headings “Unleaded Gasoline Label,” “Warranty and Maintenance,” and “Emission Control Information Label”). It is the responsibility of the final stage manufacturer to determine applicability and comply with any Federal, state, or local requirements not detailed in this manual.

IMPORTANT:

UNITED STATES VEHICLES

Ford Motor Company has endeavored, whenever possible, to state the specific conditions under which an incomplete vehicle may be completed to conform to each applicable Federal Motor Vehicle Safety Standard. These specific statements are intended to aid subsequent stage manufacturers in avoiding instances of inadvertent noncompliance to particular standards.

Note that the final responsibility for the compliance of the completed vehicle rests with the final stage manufacturer who is required by law to certify, as prescribed by Title 49, Code of Federal Regulations, Part 567.5, that the completed vehicle conforms to all applicable Federal Motor Vehicle Safety Standards and all applicable federal, state and California emission/ noise standards.

Ford Motor Company does not make any representation as to the appropriateness of modifications for any particular application other than expressly stated herein. Intermediate and final stage manufacturers must exercise proper engineering judgment to determine if a modification is appropriate for their specific application.

IMPORTANT:

UNITED STATES AND CANADIAN VEHICLES

Alterations to an incomplete vehicle by someone other than Ford Motor Company, or damage in transit, may affect compliance statements that are furnished in this manual, or representations that are printed on the label that may be affixed to a vehicle.

IMPORTANT:

GULF COOPERATION COUNCIL (GCC) VEHICLES

For GCC vehicles, the additional standards information provided in the “Supplements” section of this manual must be considered in addition to the information contained within the Incomplete Vehicle Manual when determining ultimate compliance of the completed vehicle in GCC markets.

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DEFINITIONS

The following definitions are from Title 49, Code of Federal Regulations (49CFR), Parts 567.3, 568.3 and 571.3 where noted. Canadian definitions are from Canadian Motor Vehicle Safety Regulations (CMVSR), Section 2(1), and are in italics. Ford Motor Company definitions are for the purpose of this manual only. Some terms are followed by an abbreviation that is used throughout this manual.

Ambulance – a vehicle for emergency medical care which provides: a driver's compartment; a patient compartment to accommodate an Emergency Medical Technician (EMT), Paramedic, and two litter patients (one patient on the primary cot and a secondary patient on folding litter located on the squad bench) so positioned that the primary patient can be given intensive life-support during transit; equipment and supplies for emergency care at the scene as well as during transport; two-way radio communication; and, when necessary, equipment for light rescue/extrication procedures. The Ambulance shall be designed and constructed to afford safety, comfort, and avoid aggravation of the patient's injury or illness (from Federal Specification KKK-A-1822-F). Ford Motor Company also includes within its definition of ambulance any vehicle that is used for transporting life support equipment, for rescue operations, or for nonemergency patient transfer if the engine of the vehicle is equipped with a "throttle kicker" device which enables an operator to increase engine speed over normal idle speed when the vehicle is not moving. (Ford Motor Company)

B-Pillar – the vehicle body structure located directly rearward of each front door. This structure will include the outer panel, all inner panels or reinforcements which support the door opening, the door latching system, and/or the roof structure. (Ford Motor Company)

Basic (Stripped) Chassis – an incomplete vehicle, without occupant compartment, that requires the addition of an occupant compartment and cargo-carrying, work performing, or load-bearing components to perform its intended function. (Ford Motor Company)

Bus – a motor vehicle with motive power, except a trailer, designed for carrying more than 10 persons. (49CFR571.3)

Bus *(Canada) – a vehicle having a designated seating capacity of more than 10, but does not include a trailer or a vehicle imported temporarily for special purposes. (autobus)*

Chassis Cab – an incomplete vehicle, with completed occupant compartment, that requires only the addition of cargo -carrying, work performing, or load-bearing components to perform its intended function. (49CFR567.3)

Completed Vehicle – a vehicle that requires no further manufacturing operations to perform its intended function. (49CFR567.3)

Critical Control Item – a component or procedure which may affect compliance with a Federal regulation or, which could directly affect the safe operation of the vehicle. The identifying symbol is an inverted delta (∇). (Ford Motor Company)

Cutaway Chassis – an incomplete vehicle that has the back of the cab cut out for the intended installation of a structure that permits access from the driver's area to the back of the completed vehicle. (Ford Motor Company)

Cutaway Chassis *(Canada) – an incomplete vehicle that has the back of the cab cut out for the intended installation of a structure that permits access from the driver's area to the back of the vehicle. (châssis tronqué)*

Designated Seating Position **–** a seat location that has a seating surface width, as described in §571.10(c) of this part, of at least 330 mm (13 inches). The number of designated seating positions at a seat location is determined according to the procedure set forth in §571.10(b) of this part. However, for trucks and multipurpose passenger vehicles with a gross vehicle weight rating greater than 10,000 lbs., police vehicles as defined in S7 of FMVSS 208, firefighting vehicles, ambulances, and motor homes, a seating location that is labeled in accordance with S4.4 of FMVSS 207 will not be considered a designated seating position. For the sole purpose of determining the classification of any vehicle sold or introduced into interstate commerce for purposes that include carrying students to and from school or related events, any location in such a vehicle intended for securement of an occupied wheelchair during vehicle operation is regarded as four designated seating positions. (49CFR571.3)

Designated Seating Position *(Canada) – means a location in a vehicle that is likely to be used as a seating position and that has a seating surface width of at least 330 mm; (place assise désignée)*

Final-Stage Manufacturer – a person who [company that (CMVSR)] performs such manufacturing operations on an incomplete vehicle that it becomes a completed vehicle. (49CFR567.3)

Forward Control – a vehicle configuration in which more than half of the engine length is rearward of the foremost point of the windshield base and the steering wheel hub is in the forward quarter of the vehicle length. (49CFR571.3)

Gross Axle Weight Rating (GAWR) – the value specified by the vehicle manufacturer as the load-carrying capacity of a single axle system, as measured at the tire-ground interfaces. (49CFR571.3)

Gross Combination Weight Rating (GCWR) – the value specified by the manufacturer as the loaded weight of a combination vehicle. (49CFR571.3)

Gross Vehicle Weight Rating (GVWR) – the value specified by the manufacturer as the loaded weight of a single vehicle. (49CFR571.3)

H-Point – the mechanically hinged hip point of a manikin which simulates the actual pivot center of the human torso and thigh, described in SAE Recommended Practice J826, "Manikins For Use in Defining Vehicle Seating Accommodations," November 1962. (49CFR571.3)

H-point *(Canada) – the mechanically hinged hip point of a manikin that simulates the actual pivot centre of the human torso and thigh, described in SAE Standard J826 APR80, Devices for Use in Defining and Measuring Vehicle Seating Accommodation. (point H)*

Incomplete Vehicle – an assemblage consisting, at a minimum, of chassis (including the frame) structure, power train, steering system, suspension system, and braking system, in the state that those systems are to be part of the completed vehicle, but requires further manufacturing operations to become a completed vehicle. (49CFR567.3)

Incomplete Vehicle *(Canada) – a vehicle (a) other than a vehicle imported temporarily for special purposes, that is capable of being driven and that consists, at a minimum, of a chassis structure, power train, steering system, suspension system and braking system in the state in which those systems are to be part of the completed vehicle, but requires further manufacturing operations to become a completed vehicle or (b) that is an incomplete trailer. (véhicule incomplet)*

Incomplete Vehicle Manufacturer – a person who [company that (CMVSR)] manufactures an incomplete vehicle by assembling components none of which, taken separately, constitute an incomplete vehicle. (49CFR567.3)

Intermediate Manufacturer – a person [company (CMVSR)], other than the incomplete vehicle manufacturer or the final stage manufacturer, who [that (CMVSR)] performs manufacturing operations on a vehicle manufactured in two or more stages. (49CFR567.3)

Motor Home – a multi-purpose vehicle with motive power that is designed to provide temporary residential accommodations, as evidenced by the presence of at least four of the following facilities: cooking; refrigeration or ice box; self-contained toilet; heating and/or air conditioning [system that can function independently of the vehicle engine (CMVSR)]; a potable water supply system including a faucet and a sink; and a separate 110-125 volt electrical power supply and/or an LP gas supply. (49CFR571.3)

Multifunction School Activity Bus (MFSAB) – a school bus whose purposes do not include transporting students to and from home or school bus stops. (49CFR571.3)

Multipurpose Passenger Vehicle (MPV) – a motor vehicle with motive power, except a low-speed vehicle or trailer, designed to carry 10 persons or less which is constructed either on a truck chassis or with special features for occasional off-road operation. (49CFR571.3)

Multipurpose Passenger Vehicle (MPV) *(Canada) – a vehicle having a designated seating capacity of 10 or less that is constructed either on a truck-chassis or with special features for occasional off-road operation, but does not include an air cushion vehicle, an all-terrain vehicle, a golf cart, a low-speed vehicle, a passenger car, a three-wheeled vehicle, a truck or a vehicle imported temporarily for special purposes. (véhicule de tourisme à usages multiples)*

Pickup Box Delete – a Chassis Cab incomplete vehicle created by ordering a Pickup Box Delete option on an otherwise completed vehicle. (Ford Motor Company)

School Bus – a bus that is sold, or introduced in interstate commerce, for purposes that include carrying students to and from school or related events, but does not include a bus designed and sold for operation as a common carrier in urban transportation. (49CFR571.3)

School Bus *(Canada) – a bus designed or equipped primarily to carry students to and from school. (autobus scolaire)*

Seating Reference Point – the unique design H-point, as defined in SAE J1100 (June 1984), which:
a) establishes the rearmost normal design driving or riding position of each designated seating position in a vehicle,
b) has X, Y, and Z coordinates established relative to the designed vehicle structure,
c) simulates the position of the pivot center of the human torso and thigh, and
d) is the reference point employed to position the two-dimensional drafting template described in SAE J826 (May 1987). (abbreviated by Ford Motor Company)

Seating Reference Point *(Canada) – the unique Design H-point, as defined in section 2.2.11.1 of SAE Recommended Practice J1100 (June 1993), that:*
a) *establishes the rearmost normal design driving or riding position of each designated seating position, taking into account all modes of adjustment – horizontal, vertical and tilt – in a vehicle,*
b) *has X, Y and Z coordinates, as defined in section 2.2.3 of SAE Recommended Practice J1100 (June 1993), established relative to the designed vehicle structure,*
c) *simulates the position of the pivot centre of the human torso and thigh, and*
d) *is the reference point employed to position the H-point template with the 95th percentile leg, as described in section 3.1 of SAE Standard J826 (June 1992), or, if that drafting template cannot be positioned, the reference point when the seat is in its rearmost adjustment position. (point de référence de position assise)*

Second Unit Body (SUB) – consists of the body structure and/or all the cargo carrying, work performing, and/or load bearing components and/or equipment installed by a subsequent stage manufacturer on an incomplete vehicle, such that the incomplete vehicle becomes a completed vehicle. (Ford Motor Company)

Service Body – a type of Second Unit Body (SUB) that incorporates structural side and rear panels that extend below frame height. (Ford Motor Company)

Subsequent Stage Manufacturer – a term which means either intermediate or final stage manufacturers or both. (Ford Motor Company)

Trimmed Seat – a complete functional seat assembly including the seat pedestal, seat track, seat base frame, seat back, recliner mechanism, seat padding, all attaching hardware, and the final trim material (i.e., cloth, leather, or vinyl). (Ford Motor Company)

Truck – a motor vehicle with motive power, except a trailer, designed primarily for the transportation of property or special purpose equipment. (49CFR571.3)

Truck *(Canada) – a vehicle designed primarily for the transportation of property or special-purpose equipment but does not include a competition vehicle, a crawler-mounted vehicle, a trailer, a work vehicle, a vehicle imported temporarily for special purposes or a vehicle designed for operation exclusively off-road. (camion)*

Truck Tractor – a truck designed primarily for drawing other motor vehicles and not so constructed to carry a load other than a part of the weight of the vehicle and the load so drawn. (49CFR571.3)

Unloaded Vehicle Weight (UVW) – the weight of a vehicle with maximum capacity of all fluids necessary for operation of the vehicle, but without cargo, occupants, or accessories that are ordinarily removed from the vehicle when it is not in use. (49CFR571.3)

Unloaded Vehicle Weight *(Canada) – the weight of a vehicle equipped with the containers for the fluids necessary for the operation of the vehicle filled to their maximum capacity, but without cargo or occupants. (poids du véhicule sans charge)*

Untrimmed Seat – the structure including the seat pedestal, seat track, seat base frame, seat back, recliner mechanism, seat padding, and all attaching hardware required for a functional seat assembly without the final trim material (e.g., cloth, leather, or vinyl) and trim material attaching components. (Ford Motor Company)

Walk-In Van – a special cargo/mail delivery vehicle that has only one designated seating position. That designated seating position must be forward facing and for the use only by the driver. The vehicle usually has a thin and light sliding (or folding) side door for easy operation and a high roof clearance that a person of medium stature can enter the passenger compartment area in an up-right position. (49CFR571.214)

Walk-In Van *(Canada) – a van type of truck in which a person having a height of 1700 mm can enter the occupant compartment in an upright position by a front door. (fourgon à accès en position debout)*

GENERAL INFORMATION

Information in this section is provided pursuant to Title 49, Code of Federal Regulations, Part 568 – "Vehicles Manufactured in Two or More Stages", and Section 6 of the Canadian Motor Vehicle Safety Regulations (CMVSR) – "Vehicles Manufactured in Stages." Part 568 specifies that final stage manufacturers must complete vehicles in compliance with all applicable Federal Motor Vehicle Safety Standards and affix a label to each incomplete vehicle that is completed in accordance with 49CFR567.5. Section 6.6 of the CMVSR provides labeling requirements for vehicles that are to be sold in Canada.

DIRECTIONS

STATEMENTS OF CONFORMITY

The "Statements of Conformity" section of this manual lists the Federal Motor Vehicle Safety Standards in effect on the date of manufacture of this incomplete vehicle that are applicable to the type(s) of completed vehicles into which this incomplete vehicle may be manufactured. The date of vehicle manufacture is shown on the label affixed to the cover of this manual. These statements, in many cases, apply to specific types of incomplete or completed vehicles and identify GVWR and UVW weight ranges. These statements may be used and relied on by any intermediate and/or final stage manufacturer as a basis for certification.

The incomplete vehicle type is identified by the 5th, 6th, and 7th digits of the Vehicle Identification Number (VIN). The completed vehicle types to which this incomplete vehicle may appropriately be completed is printed on the label that is affixed to the cover of this document under the heading "May Be Completed As,". The Completed Vehicle Types chart on a following page identifies how various incomplete vehicles with an optional prep package or trim code may be completed.

Each statement of conformity is identified by a safety standard number located at the left margin. Because there may be multiple statements of conformity for each safety standard, use care to select the appropriate statement(s). Unique CMVSS requirements will be identified at the conclusion of the representations for a particular safety standard.

Compliance statements provided in this manual are of the three following types (49CFR568.4):

Type I A statement that the vehicle, when completed, will conform to the standard if no alterations are made in identified components of the incomplete vehicle.

Type II A statement of specific conditions of final manufacture under which the incomplete vehicle manufacturer specifies that the completed vehicle will conform to the standard.

Type III A statement that conformity with the standard cannot be determined based upon the components supplied on the incomplete vehicle, and that the incomplete vehicle manufacturer makes no representation as to conformity with the standard.

IMPORTANT:

To rely on the compliance representations in this manual, the incomplete vehicles must be completed as one of the completed vehicle types designated on the label affixed to the cover of this manual, and must not exceed the specified GVWR, GAWRs, or the Unloaded Vehicle Weight limits when specified in this manual.

This vehicle was certified with a GVWR over 3856 kg [8500 lb.]. If the GVWR is modified to less than 3856 kg [8500 lb.], additional Federal and/or Canadian Motor Vehicle Safety Standards (F/CMVSS) may apply.

VEHICLE SPECIAL ORDER (VSO) VEHICLES

VSO vehicles can be identified by a number with the letters VSO in the lower right area of the Incomplete Vehicle Information Label which is affixed to the driver-door lock pillar. See the sample labels in Figure 1.

The Statements of Conformity section of this manual includes compliance representations for certain VSO vehicles – these vehicles are identified in the Completed Vehicle Types chart. Other VSO vehicles may require additional Statements of Conformity, which would be included in a Supplement Section of this manual.

FORD BODY BUILDER ASSISTANCE

Throughout this Incomplete Vehicle Manual you will find reference to information found in the Ford Body Builders Layout Books which contain best practices (see the "General" BBLB) as well as specific recommendations and specifications (see the BBLB for the vehicle line in question) to assist subsequent stage manufacturers in completing incomplete vehicles. The Ford Body Builders Layout Books can be accessed via the web at https://fordbbas.com under "Publications".

The Ford Body Builder Advisory Service may be consulted regarding information contained in this manual via the following methods:

- Call (877) 840-4338
- E-mail via the web at https://fordbbas.com under "Contact Us".

INCOMPLETE VEHICLE MANUAL COVER

The cover of this manual depicts the incomplete vehicle configurations for which compliance representations are contained in this manual. Also, a label is affixed to the cover which includes the Vehicle Identification Number (VIN) for the specific vehicle to which this manual belongs. The label identifies the following information which pertains only to the vehicle with the corresponding VIN:

- GVWR
- Front and rear GAWRs
- Tire and wheel size
- Cold tire inflation pressure (kPa/PSI)
- Completed vehicle type(s) into which the incomplete vehicle may be manufactured
- Optional prep package when the vehicle is so equipped

INCOMPLETE VEHICLE INFORMATION LABEL

All incomplete vehicles represented in this manual and manufactured by Ford Motor Company will have an Incomplete Vehicle Information Label affixed to the driver-door lock pillar. Samples of typical labels are shown in Figure 1.

The 5th, 6th, and 7th positions of the Vehicle Identification Number (VIN) will identify the incomplete vehicle type. These three positions are used in the Completed Vehicle Types chart.

The California Air Resources Board (CARB) requires a Vehicle Identification Number (VIN) Label having a noncontact barcode reading wand capability. The barcode located directly below the VIN on the Incomplete Vehicle Information Label, when provided, will comply with this regulation.

The Canadian Motor Vehicle Safety Act and Regulations require installation of an Incomplete Vehicle Information Label with the National Safety mark on it on vehicles manufactured for sale in Canada. A sample of a typical label is shown in Figure 1.

OPTIONAL PREP PACKAGES

Incomplete vehicles produced by Ford Motor Company, in some instances, are equipped with an optional prep package.

- Super Duty F-Series optional prep packages include the Ambulance Prep and Fire / Rescue Prep.

The Completed Vehicle Types chart on the following page will identify incomplete vehicles and an optional prep package or trim code that may be required by Ford Motor Company if final stage manufacturers wish to rely on the Statements of Conformity or, in some cases, preserve the Ford Motor Company new vehicle warranty.

If an incomplete vehicle is equipped with an optional prep package, both the Incomplete Vehicle Information Label affixed to the vehicle and the label on the front of this manual will identify the prep package.

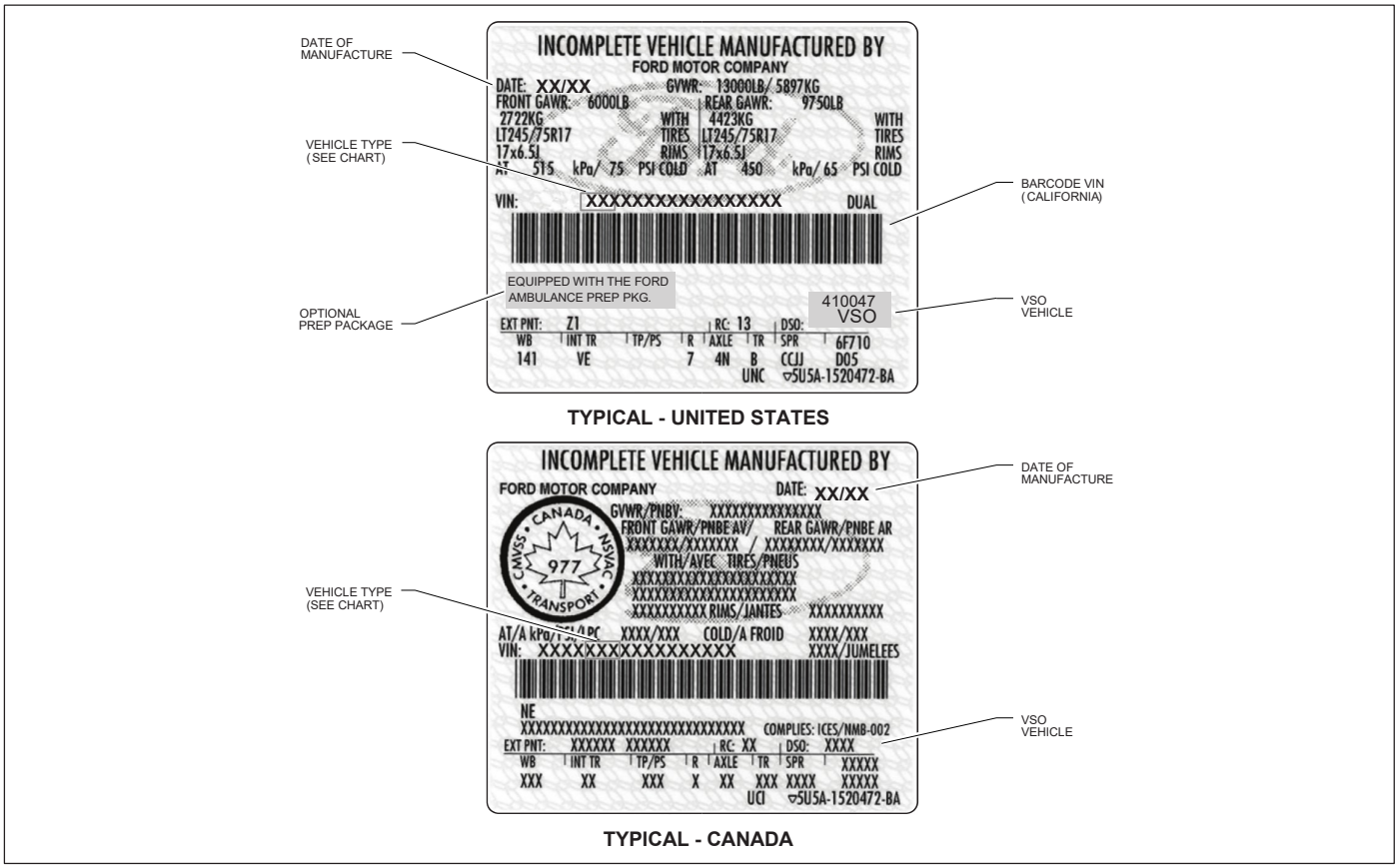

FIGURE 1 - SAMPLE INCOMPLETE VEHICLE INFORMATION LABELS

COMPLETED VEHICLE TYPES

5TH, 6TH, 7TH VIN DIGIT	INCOMPLETE VEHICLES	COMPLETED VEHICLES	
		TRUCK	MPV
SUPER DUTY F-SERIES			
F2A, F3A, F3E	F-250 / 350 Regular Cab 4X2 (SRW)*	X	X
F2B, F3B, F3F	F-250 / 350 Regular Cab 4X4 (SRW)	X	X
F3C, F3G, F4G, F5G, F6K	F-350 / 450 / 550 / 600 Regular Cab 4X2 (DRW)**	X	X
F3D, F3H, F4H, F5H, F6L	F-350 / 450 / 550 / 600 Regular Cab 4X4 (DRW)	X	X
X2A, X3A, X3E	F-250 / 350 Super Cab 4X2 (SRW)	X	X
X2B, X3B, X3F	F-250 / 350 Super Cab 4X4 (SRW)	X	X
X3C, X3G, X4G, X5G	F-350 / 450 / 550 Super Cab 4X2 (DRW)	X	X
X3D, X3H, X4H, X5H	F-350 / 450 / 550 Super Cab 4X4 (DRW)	X	X
W2A, W3A, W3E	F-250 / 350 Crew Cab 4X2 (SRW)	X	X
W2B, W3B, W3F	F-250 / 350 Crew Cab 4X4 (SRW)	X	X
W3C, W3G, W4G, W5G	F-350 / 450 / 550 Crew Cab 4X2 (DRW)	X	X
W3D, W3H, W4H, W5H	F-350 / 450 / 550 Crew Cab 4X4 (DRW)	X	X

IMPORTANT:

Ford Motor Company makes no representation that the completed vehicle types listed above are the only vehicle types appropriate for the incomplete vehicles listed. However, if a unit is completed as a vehicle type other than as listed above, the Statements of Conformity may not be applicable.

** Single Rear Wheels*
*** Dual Rear Wheels*

STATEMENTS OF CONFORMITY

The following Statements of Conformity apply to vehicles that are produced for sale or importation into the United States or Canada. The term “Incomplete Vehicle Types” in these statements refers to the types of the vehicles depicted on this manual’s cover and listed in the chart on the previous page.

The number preceding each Statement of Conformity refers to the number designation for a Part or a Section of Part 571 of the Federal Motor Vehicle Safety Standard.

The statements provided for each safety standard number are appropriate compliance representations for each Canadian safety standard number if this incomplete vehicle, identified by the VIN on the front of the document, was manufactured by Ford Motor Company for sale or use in Canada, except as may be noted at the conclusion of each safety standard number.

101 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 101, Controls and Displays, if:

- The controls, displays, and their identifications supplied by Ford Motor Company are not removed, relocated, altered, or modified.
- The components, wiring, and power supply installed by Ford Motor Company to illuminate any control, display, or their identification are not removed or altered so as to affect lighting performance.
- Components added to the vehicle do not obstruct the driver’s ability to operate or visually locate the controls, displays, and their identifications.
- The driver-seat is not replaced, relocated, or modified other than for the addition of seat trim.

Any controls, displays, and illumination added to this vehicle must conform to the requirements of this Standard.

102 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 102, Transmission Shift Lever Sequence, Starter Interlock, and Transmission Braking Effect, if no alterations or adjustments are made to the transmission, shift cable, transmission outer shift lever, shift cable bracket, vacuum tubes, vacuum pump system, brake-shift interlock system, starter interlock system, wiring circuit from the interlock switch to the power source, and transmission gear selector indicator (PRNDL).

If an auxiliary transmission is added to this vehicle, it must conform to the requirements of this Standard.

103 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 103, Windshield Defrosting and Defogging Systems, if no alterations or adjustments are made to heater and blower assemblies, ducting, operating controls, electrical circuit from the blower assembly to the power source, windshield, coolant hoses from the radiator or engine to the heater, and if no obstructions are added that restrict or otherwise redirect the air flow from the defroster outlets to the windshield.

104 The statement below is applicable to all incomplete vehicle types:

This vehicle when completed, will conform to Standard 104, Windshield Wiping and Washing Systems, if no alterations are made to the windshield, the windshield wiping and washing system including the electrical circuit from the windshield wiping and washing motors to the power source, and if no obstructions are added that restrict or otherwise redirect fluid flow from the washer nozzles to the windshield.

105 INFORMATION

Reference information that may be helpful for center of gravity calculations is available on the Ford Body Builders Advisory Service (BBAS) website https://fordbbas.com, under "Publications". The program specific Body Builder Layout Books (BBLBs) contain chassis base curb weights, GAWR, CG locations and dimensional information. The Accessory weights are listed in the Ford eSourceBook, which can be found under "Vehicle Specifications". The “General” BBLB contains definitions, calculations and testing methods regarding vehicle center of gravity. If you do not have access to this information online, please contact your Ford Dealer.

105 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 105, Hydraulic and Electric Brake Systems, if:

- No alterations, modifications, or replacements are made to the following:
  - Service or parking brake system
  - Antilock brake system
  - Vacuum system
  - Wheels and tires
  - Brake system indicator lamp and wiring
  - Brake system reservoir labeling; label is not to be obstructed by additional under hood components
  - Suspension ride height or spring rate
- Additional sound deadener or rustproofing material applied to the vehicle must not interfere with the proper parking brake cable function.
- The service or parking brake pedal assembly operation is not restricted by any alteration or added components.
- No part of add-on equipment, i.e., toolboxes, flatbed attaching brackets, etc., can interfere with proper movement of parking brake cables or airflow to rear brake assemblies.
- The maximum GAWR's and GVWR, as identified on the cover of this document, are not exceeded.
- The Vertical Center of Gravity of the completed vehicle (CG_V) in any loading condition must fall within the range defined by the equations in Table 1 for the applicable chassis configuration.

NOTE:

CG Restrictions listed in the Statements of Conformity in this manual are only intended to ensure the completed vehicle will meet the applicable F/CMVSS standard for which they are listed. The location of vehicle CG is also a significant factor in the stability and handling of the vehicle. It is the responsibility of the final stage vehicle manufacturer to ensure that the vehicle achieves acceptable stability and handling performance in all loading conditions.

NOTE:

Refer to the Standard 126, 212 / 219 and 301 statements in this manual for addition CG restrictions on vehicles with less than or equal to 4536 kg [10,000 lb.] GVWR.

WARNING:

Do not wrap the brake lines with any material that could cause water, dirt, sand or other foreign material to accumulate around the lines, potentially resulting in brake line damage or corrosion.

106 The statement below is applicable to all incomplete vehicle types:

The vehicle, when completed, will conform to Standard 106, Brake Hoses, if the brake hose assemblies supplied by Ford Motor Company are not removed, relocated, altered, or modified, and if no brake hose assemblies are added.

108 The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lb.] or less and a vehicle width less than 2032 mm [80 in]:

This vehicle, when completed, will conform to Standard 108, Lamps, Reflective Devices, and Associated Equipment. If the Chassis Cab Center High Mounted Stop Lamp (CHMSL) is obstructed from the rear of the completed vehicle, it must be replaced with a CHMSL that meets all the requirements of this standard and is connected to the electrical power source as provided by Ford Motor Company. See BBLB for guidance on appropriate CHMSL circuit information.

108 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 108, Lamps, Reflective Devices, and Associated Equipment, if all the required lighting equipment as indicated in Table 2 (identified by the codes R and S) is designed and installed in accordance with the requirements of Standard 108 and the directions contained in this compliance manual. Additionally, if the completed vehicle width is 2032 mm [80 in] or more, and/or the overall length is 9.14 meters [30 feet] or more, front and rear clearance lamps, and front and rear identification lamps, and/or intermediate side marker lamps, and reflex reflectors (not supplied by Ford Motor Company) are also required for compliance with Standard 108.

The items of equipment which are supplied by Ford Motor Company (identified by the code S in Table 2) are designed and installed to conform to all the applicable requirements of Standard 108. The completed vehicle, with these components installed, will conform to Standard 108 if the subsequent stage manufacturer does not remove, relocate, replace or modify such equipment or modify the power supply or wiring to such equipment, and does not complete the body in such a configuration as to impair the conformity to the photometric and/or visibility requirements of the installed lamps and reflective devices.

Specific requirements for the fitment of lighting and associated equipment are listed by incomplete vehicle type in Table 2.

Lamps, reflective devices, and associated equipment necessary to complete the vehicle from an incomplete vehicle stage must conform to the equipment, location, activation, visibility, photometric and performance requirements of Standard 108 and to the applicable SAE standards or recommended practices referenced or sub-referenced in this Standard.

All electrical equipment added to the vehicle by subsequent stage manufacturers must conform to the practices set forth in the “Electrical System” Section of the *Ford General Body Builders Layout Book*, which can be found at https://fordbbas.com, under "Publications".

TABLE 1
CENTER OF GRAVITY LIMITATIONS

GVWR	Chassis Configuration	FMVSS 105 Completed Vehicle CG_v Range (1)(2)		FMVSS 126 Completed Vehicle CG_v	FMVSS 212/219 FMVSS 301 SUB CG_{vb}
		Maximum (in)	Minimum (in)	Maximum (in) (1)	Maximum (in) (3)
10,000 lbs. or less	Regular Cab	$(3.85 * CG_h) - (1.43 * WB)$	$(3.85 * CG_h) - (2.51 * WB)$	42.6	17.6
	Super & Crew Cab				24.0
Over 10,000 lbs.	All	$(4.55 * CG_h) - (1.43 * WB)$	$(4.55 * CG_h) - (3.21 * WB)$	N/A	N/A

(1) Completed Vehicle Vertical CG (CG_v) as measured from the ground
(2) Completed Vehicle Horizontal CG (CG_h as measured from the Centerline of the Front Axle, and Wheelbase (WB) must be expressed in Inches when used in the equations.
(3) Second Unit Body (SUB) Vertical CG (CG_{vb}) as measured from the top of the Frame Rails 12-18 inches behind the cab.

TABLE 2
STANDARD 108 LIGHTING EQUIPMENT

Item		Completed as Truck, MPV, Bus or School Bus: Width less than 2032 mm [80 in]	Completed as Truck, MPV, Bus or School Bus: Width 2032 mm [80 in] or more
Headlamps with Hi/Lo beam switching		S (1)	S (1)
Daytime Running Lamps (when provided)		N/S (2)	N/S (2)
Tail Lamps		S	S
Stop Lamps		S	S
Center High Mounted Stop Lamp (CHMSL)		S	N
License Plate Lamps		S	S
Reflex Reflectors	- Side Front - Side Rear - Rear	S R R	S R R
Side Marker Lamps	- Front - Rear	S R	S R
Back-Up Lamps		S	S
Turn Signal Lamps	- Front - Rear	S S	S S
Turn Signal Operating Unit		S	S
Turn Signal Flasher		S (3)	S (3)
Vehicular Hazard Warning Signal Operating Unit		S	S
Vehicular Hazard Warning Signal Flasher		S	S
Identification Lamps	- Front - Rear	N (4) N	S (5) R
Clearance Lamps	- Front - Rear	N (4) N	S (6) R
Parking Lamps		S	N

S Required on completed vehicle and supplied with the incomplete vehicle.

R Required on completed vehicle and <u>not</u> supplied with the incomplete vehicle.

N Not required for completed vehicle.

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1) *Due to variations in finished vehicle attitude, headlights should be aimed after all modifications are completed.*
2) *Required on Canadian vehicles; optional on U.S. vehicles.*
3) *Turn signal flasher function is contained within the Body Control Module features. All Chassis Cab vehicles, including Pickup Box Deletes, are configured to provide the function of a variable-load turn signal flasher. Turn signal lamp failure indication is not supplied with the incomplete vehicle and will be required if the completed vehicle does not meet the exemption criteria in S9.3.6 of FMVSS 108.*
4) *Supplied as supplemental roof lighting on Chassis Cabs and F-350 dual wheel Pickup Box Delete vehicles; available as an option on other Pickup Box Delete vehicles.*
5) *Additional identification lamps may be required on the Second Unit Body if the SUB is higher than the Cab.*
6) *Cab-mounted clearance lamps, as supplied, do not adequately indicate overall width of the vehicle per requirements of F/CMVSS 108; additional clearance lamps will be required.*

108 The statement below, is applicable to all incomplete vehicle types:

- No additional components may be added to the vehicle which block access to the headlamp aiming devices, as provided by Ford Motor Company, if removing them requires the use of tools.
- Daytime Running Lamps (DRL's): Vehicles for sale or use in Canada are equipped with DRL's that meet CMVSS 108 DRL requirements; DRL's, when provided on an incomplete vehicle, also meet FMVSS 108 specifications.
- Conformity with Standard 108, S12, Headlamp Concealment Devices, cannot be determined based upon the components supplied on this incomplete vehicle; accordingly, Ford Motor Company makes no representation as to conformity with this section of the Standard.

108 Canadian Requirements:

The preceding statements for Standard 108 are appropriate compliance representations for CMVSS 108, Lighting System and Retroreflective Devices, if this vehicle is manufactured for sale and use in Canada, provided:

- No component of the supplied Daytime Running Lamp (DRL) system is removed, relocated, or modified.
- The DRL circuits in the Body Control Module or headlamp circuits/ hardware are not altered.
- The Body Control Module is not repositioned

110 The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lbs.] or less:

This incomplete vehicle does not comply to FMVSS 110, Tire Selection and Rims and Motor Home / Recreation Vehicle Trailer Load Carrying Capacity Information for Motor Vehicles with a GVWR of 4,536 Kilograms (10,000 Pounds) or Less. In order to comply, the final stage manufacturer must permanently affix a tire placard as specified in paragraph S4.3. The placard must be affixed to the B-Pillar. Shown in Figure 2 is a sample U.S. (only) placard; Canadian vehicles require a similar, but bilingual placard.

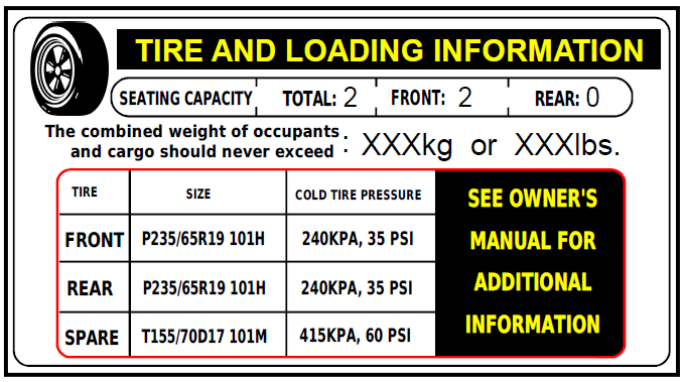


FIGURE 2 - SAMPLE OF U.S. TIRE PLACARD

111 The statement below is applicable to all incomplete vehicle types <u>when not equipped with outside mirrors</u>:

Conformity with Standard 111, Rear Visibility, cannot be determined based upon the components supplied on this incomplete vehicle; accordingly, Ford Motor Company makes no representation as to conformity with this Standard.

111 The statement below is applicable to all incomplete vehicle types <u>when equipped with OEM outside mirrors</u>:

This vehicle, when completed, will conform to Standard 111, Rear Visibility, S6 & S7 as relates to outside mirrors, if:

- The mirrors and their mounts as supplied by Ford Motor Company are not removed, relocated, replaced, nor altered.
- No structural modifications are made to the body which would affect the stability of the mirror mounts.
- Any modifications or additions made to the incomplete vehicle must not adversely affect the driver's view to the rear in the outside mirrors along both sides of the vehicle.

111 The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lb.] or less:

Conformity with Standard 111, S6.2 Rear visibility, as relates to rearview image devices, cannot be determined based upon the components supplied on this incomplete vehicle; accordingly, Ford Motor Company makes no representation as to conformity with this Standard

113 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 113, Hood Latch Systems, if the hood latch system as provided by Ford Motor Company is not removed or altered.

114 The statement below is applicable to all incomplete vehicle types when completed as either a MPV or a Truck with a GVWR of 4536 kg [10,000 lb.] or less:

This vehicle, when completed, will conform to Standard 114, Theft Protection and Rollaway Prevention, if the following components, to the extent provided by Ford Motor Company, are not removed, relocated, altered, or modified in any way:

- Steering column locking mechanism system
- Ignition key/transmission shift interlock locking system
- Ignition key-locking system
- Key warning buzzer system

If any of the above components are added to the vehicle they must conform to the requirements of this Standard.

115 Canadian Requirements:

The statements for Part 565.13 are appropriate compliance representations for CMVSS 115, Vehicle Identification Number, if this incomplete vehicle was manufactured for sale or use in Canada.

116 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 116, Motor Vehicle Brake Fluids, provided any brake fluid added or replaced conforms to the appropriate DOT specification labeled on the brake master cylinder and contaminants are not introduced into the hydraulic brake system.

118 The statement below is applicable to all incomplete vehicle when completed as either a MPV or a Truck with a GVWR of 4536 kg [10,000 lb.] or less:

This vehicle, when completed, will conform to Standard 118, Power-Operated Window, Partition, and Roof Panel Systems, if the power-operated windows, motors, wiring, and key and switch activation systems, where provided by Ford Motor Company, are not removed, relocated, altered, or modified in any way.

If additional power-operated window, partition, or roof panel systems are installed by subsequent stage manufacturers, they must conform to the requirements of Standard 118.

119 The statement below is applicable to all incomplete vehicle types:

All tires supplied by Ford Motor Company are in full conformity with Standard 119, New Pneumatic Tires for Motor Vehicles with a GVWR of More Than 4536 Kilograms (10,000 Pounds) and Motorcycles.

If additional tires are installed, or the existing tires are replaced by subsequent stage manufacturers, they must conform to the requirements of Standard 119.

120 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to the tire and rim selection requirements of Standard 120, Tire Selection and Rims and Motor Home / Recreation Vehicle Trailer Load Carrying Capacity Information for Motor Vehicles with a GVWR of More Than 4536 Kg (10,000 Pounds), if:

- The tire and rim assemblies are not removed, altered, or replaced.
- The Incomplete Vehicle Information Label that is either provided with the incomplete vehicle or affixed to the vehicle is not removed.

The final stage manufacturer also must, in accordance with the requirements of Standard 120 and Part 567 of Title 49, Code of Federal Regulations (Section 6.6 of the Canadian Motor Vehicle Safety Regulations), affix a Certification (Compliance) label to the completed vehicle indicating tire size, rim size, cold inflation pressure, and the gross axle weight ratings. This information is provided on the label that is affixed to the cover of this manual.

124 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 124, Accelerator Control Systems, if:

- No alterations are made to the accelerator pedal, mounting hardware, adjustable pedal mechanism, or other components of the accelerator control system as installed by Ford Motor Company.
- No equipment is added nor existing equipment modified which would restrict operation of the accelerator control system.
- No alterations are made to the Pedal Position Sensor and all associated hardware and wiring.

NOTE:

Although not required by regulation, some vehicles over 10,000 lb. GVWR are equipped with Electronic Stability Control (ESC). Altering of the vehicle wheelbase, relocation of any sensors and/or significant change in tire diameter may result in unnecessary intervention or reduced performance of the ESC system. See the Body Builder Layout Book for further information on modifying vehicles equipped with Electronic Stability Control.

126 The statement below is applicable to all incomplete vehicle types with a GVWR is 4536 kg [10,000 lb.] or less:

This vehicle will conform to Standard 126, Electronic Stability Control Systems, if:

- The vertical center of gravity (CG_v) of the completed vehicle does not exceed the value in Table 1 for the applicable chassis configuration.
- The Unloaded Vehicle Weight (UVW) of the completed vehicle does not exceed the value in Table 3 for the applicable chassis configuration.
- No modifications have been made to the components of the braking system, suspension system, wheels and tires, the vehicle wheelbase is not modified, and the yaw sensor is not relocated or reoriented.

138 The statement below is applicable to all incomplete vehicle types with single rear wheel (SRW) if the GVWR is 4536 kg [10,000 lb.] or less (if equipped):

The Tire Pressure Monitoring System (TPMS) is subject to interference from the addition of metallic structures between the wheel-mounted sensor transmitters and the on-board receiver.

This vehicle, when completed, will conform to Standard 138, Tire Pressure Monitoring Systems, if:

- No alterations are made to the tire pressure sensors,, wheels, tires, recommended tire pressures, electrical Body Control Module, TPMS receiver, instrument cluster, instrument panel wiring, or software calibrations.
- Wheelbases are not lengthened beyond 180".
- No equipment that emits radio frequency (RF) energy is added to the vehicle.
- After vehicle upfit, function of the Tire Pressure Monitoring System is verified in accordance with FMVSS 138 and in accordance with information provided in the vehicle's Owner's Manual.

139 The statement below is applicable to all incomplete vehicle types with a GVWR is 4536 kg [10,000 lb.] or less:

All tires supplied by Ford Motor Company are in full conformity with Standard 139, New Pneumatic Radial Tires for Light Vehicles.

If additional tires are installed or the existing tires are replaced by subsequent stage manufacturers, they must conform to the requirements of Standard 139.

201 The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lb.] or less:

This vehicle, when completed, will conform to Standard 201, Occupant Protection in Interior Impact (excluding U.S. Section S6 requirements addressed separately), if the following components, as provided by Ford Motor Company, are not removed, relocated, altered, or modified in any way:

- Instrument panel
- Interior compartment doors
- Headliner
- Sun visors
- Arm rests

Seat backs of front seats installed by Ford Motor Company are designed to meet the seat back requirements of Standard 201.

If any of the above mentioned components (including front seats) are added to the incomplete vehicle by a subsequent stage manufacturer, these components must conform to the requirements of Standard 201 where applicable.

Because conformity of a completed vehicle to the seat back requirements of this standard is dependent upon the location of a seat installed by a subsequent stage manufacturer to the rear of another seat, Ford Motor Company makes no representation as to compliance of a completed vehicle to the seat back requirements if such a seat is installed.

If a vehicle is equipped with a Passenger-side Air Bag Delete option, a RH passenger seat should never be installed. If such a seat is installed, Ford Motor Company makes no representation as to the compliance of the completed vehicle to Standard 201.

201U U.S. Requirements (Section S6): The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lbs.] or less:

This incomplete vehicle will conform to Standard 201 Section 6, Occupant Protection in Interior Impact – Requirements for Upper Interior Components, if in the process of completing the vehicle none of the following components, as provided by Ford Motor Company, are removed, relocated, altered, or modified either physically or chemically:

- A, B, rear, or other pillar and trim and assist handles
- Seat belt 'D'-rings/adjusters and 'D'-ring covers and sling systems
- Canopy air curtain
- Front or rear header, headliner and trim
- Side rails, trim, coat hooks and ride handles
- Upper roof and trim
- Exterior windshield trim
- Exterior roof drain ditches
- Primary and secondary door/body seals at all door opening locations in the vehicle
- Sun visors and attachment hardware
- Changes to the design Seating Reference Point (SRP) with modifications to the seat system

Note: Standard 201 Section 6 requires compliance of all upper interior components located forward of a vertical plane 300 mm behind the seating reference point of the driver's designated seating position.

Note: If an alterer or final stage manufacturer adds any component located within 300mm rearward of the driver's designated seating reference point, those components will have to conform to the requirements of Standard 201 Sect. 6 where applicable.

202a The Statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lb.] or less:

This vehicle when completed, will conform to Standard 202a, Head Restraints, if no alterations are made to the head restraints, the seat assemblies and their anchorages, the floor pan, or floor pan reinforcements.

203 The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lb.] or less:

This vehicle, when completed, will conform to Standard 203, Impact Protection for the Driver from the Steering Control System, if:

- The steering control system is not removed, relocated, altered, or modified in any way.
- No components or attachments are added to the steering control system that can catch the driver's clothing or jewelry during normal driving maneuvers.

203 Canadian Requirements:

The preceding statements for FMVSS 203 are appropriate compliance representations for CMVSS 203, Driver Impact Protection and Steering Control System, if this incomplete vehicle was manufactured for sale or use in Canada.

205 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 205, Glazing Materials, if no alterations to, or replacements of, the installed glazing materials are made, and if additional glazing material installed by a subsequent stage manufacturer conforms to the requirements of Standard 205.

206 The statement below is applicable to all incomplete vehicle types when completed as a Truck:

This vehicle, when completed, will conform to Standard 206, Door Locks and Door Retention Components, if no alterations or adjustments are made to the door, door pillar structure, door locks, door latches, striker plates, hinges, and attaching hardware as installed by Ford Motor Company.

Any door added to this vehicle by a subsequent stage manufacturer must be equipped with door locks and door retention components that conform to the requirements of Standard 206.

207 The statement below is applicable to all incomplete vehicle types <u>when equipped with Ford trimmed front seats</u>:

This vehicle, when completed, will conform to Standard 207, Seating Systems, if no alterations are made to the seat assemblies, their anchorages, the floor pan, or floor pan reinforcements. Any seating system added to this vehicle must conform to applicable requirements of Standard 207.

208 The statement below is applicable to all incomplete vehicle types <u>when equipped with Ford trimmed front seats</u> and either the GVWR is over 3856 kg [8500 lb.], the Unloaded Vehicle Weight, when completed, is over 2495 kg [5500 lb.], or the vehicle is manufactured for operation by persons with disabilities:

This vehicle, when completed, will conform to Standard 208, Occupant Crash Protection, if:

- The seat belts, seat belt warning system, and attaching hardware installed by Ford Motor Company are not removed, relocated, altered, or modified.
- No actions are taken which would impair the integrity of the belt and seat belt warning systems. (A seat belt warning system is not required for a vehicle with a GVWR over 4536 kg [10,000 lb.] or for a bus.)
- Any rear seats installed by Ford Motor Company that are temporarily removed for any reason are returned to their original location and condition in the vehicle.
- The Air Bag Supplemental Restraint System (Driver, Passenger, Seats, Canopy Air Curtain) as installed by Ford Motor Company is not removed, relocated, modified or altered in any way. See Figures 3 and 4.
- The Air Bag Supplemental Restraint System Information Labels that are affixed to the front visors are visible and not altered, modified, or removed. If the Air Bag Supplemental Restraint System Information Labels are not affixed to the front visors, but shipped in dunnage, the following is necessary to meet Standard 208:
  - The information label must be permanently affixed to each visor in an upright position readable from the driver's or passenger's seating position.
  - If the label is not visible when the visor is stored (up position), an Air Bag Alert Label shall be placed on the visible surface of the visor as specified in Section 4.5.1(c) of Standard 208.

If the information label and/or the visor is not included on a Prep package, Ford Motor Company makes no representation as to conformity with this Standard.

Any seat belt assemblies added to this vehicle must conform to the applicable requirements of this Standard.

209 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 209, Seat Belt Assemblies, if:

- No alterations or replacements are made to the seat belt assemblies and attaching hardware.
- No action is taken that would impair the integrity of the seat belt system provided.

Any seat belt assemblies added to a vehicle must conform to the requirements of this Standard.

209 Canadian Requirements:

The preceding statement for FMVSS 209 is an appropriate compliance representation for CMVSS 209, Seat Belt Assemblies, if this incomplete vehicle was manufactured for sale or use in Canada.

WARNING:

Vehicles, including those over 3856 kg [8500 lb.] GVWR and/or over 2495 kg [5500 lb.] UVW, are equipped with a front row occupant supplemental restraint system (front/side/curtain airbags, wiring, and sensors) and pyrotechnic buckle pretensioners. Deletion of frontal passenger, driver/passenger side airbags, and curtain airbags coupled with the addition of delete resistors in the sensor system circuitry is available on some vehicles. Modifications to the vehicle forward of or near crash sensors may affect the deployment of the airbags and pretensioners.

210 The statement below is applicable to all incomplete vehicle types.

This vehicle, when completed, will conform to Standard 210, Seat Belt Assembly Anchorages, if:

- No alterations are made to the front seat belt anchorages, front seat belt assemblies, floor pan, floor pan reinforcements, or body mounts.
- No alterations are made to the rear cab panel, window or roof.

Chassis Cab vehicles may have additional seat belt anchorages for designated seating positions on optional seats not provided on incomplete vehicles. These locations apply to specific hardware and designated seating positions used in Ford completed vehicles. If these anchorages are used without the appropriate Ford seats, seat belt systems, and hardware, Ford Motor Company makes no representation as to conformity with this Standard

212/219 NOTE

The terms “body” or “body structure,” in the 212 and 219 statement that follows, include any equipment permanently attached to that body or body structure installed by the subsequent stage manufacturer as well as the basic body or body structure

212/219 INFORMATION

Refer to the *Body Builders Layout Book* on the web at https://fordbbas.com under "Publications" for information that may aid in designing Second Unit Bodies and their attachments to be compatible with this vehicle.

212/219 The statement below is applicable to all incomplete vehicle types with GVWR of 4536 kg [10,000 lb.] or less:

This vehicle, when completed, will conform to Standard 212 Windshield Mounting, and Standard 219, Windshield Zone Intrusion, if:

- The following windshield system components, related structural components, and hardware, as installed by Ford Motor Company, are not removed, relocated, altered, or modified in any way except as specified in this manual:
  - Windshield and windshield mounting system
  - Cab and front end structural components including the roof, pillars, cowl, cowl reinforcements, hood, doors, fenders, hood restrictors and frame reinforcements
  - Radio antenna and air cleaner
  - Doors and hood mounting, hinging, and latching systems
  - Hood ornamentation
  - Bumper and bumper mounting system †
- No alteration or modification made to the incomplete vehicle as manufactured by Ford Motor Company and no components or structure installed by a subsequent stage manufacturer results in any loss of windshield retention (as defined in Standard 212) or any penetration of the inner surface of the windshield or intrusion into the protected zone (as defined in Standard 219) when the vehicle is impacted in any manner specified by applicable provisions of Standard 212 or Standard 219.
- The Unloaded Vehicle Weight (UVW) of the completed vehicle does not exceed the value in Table 3 for the applicable chassis configuration.
- The body installed by the subsequent stage manufacturer is mounted securely and so designed that, when the completed vehicle is impacted in any manner specified by applicable provisions of Standards 212 and 219, body deformation or movement relative to the frame does not result in any separation or loss of body attachment to the frame.
- The Second Unit Body (SUB) center of gravity as installed by the subsequent stage manufacturer does not exceed the value in Table 1 for the applicable chassis configuration.

† NOTE:

Temporary removal of the front bumper and front bumper mounting system during manufacture and re-installation in accordance with the instructions provided in the Ford Truck Shop Manual should not adversely affect the compliance of a completed vehicle to Standards 212 and 219.

213 The statement below is applicable to all incomplete vehicle types:

Conformity with Standard 213, Child Restraint Systems, cannot be determined based upon the components supplied on the incomplete vehicle; accordingly Ford Motor Company makes no representation as to conformity with this Standard. Any child restraint system that is added or incorporated into the design of a designated seating position must conform to the requirements of this Standard.

214 The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lb.] or less:

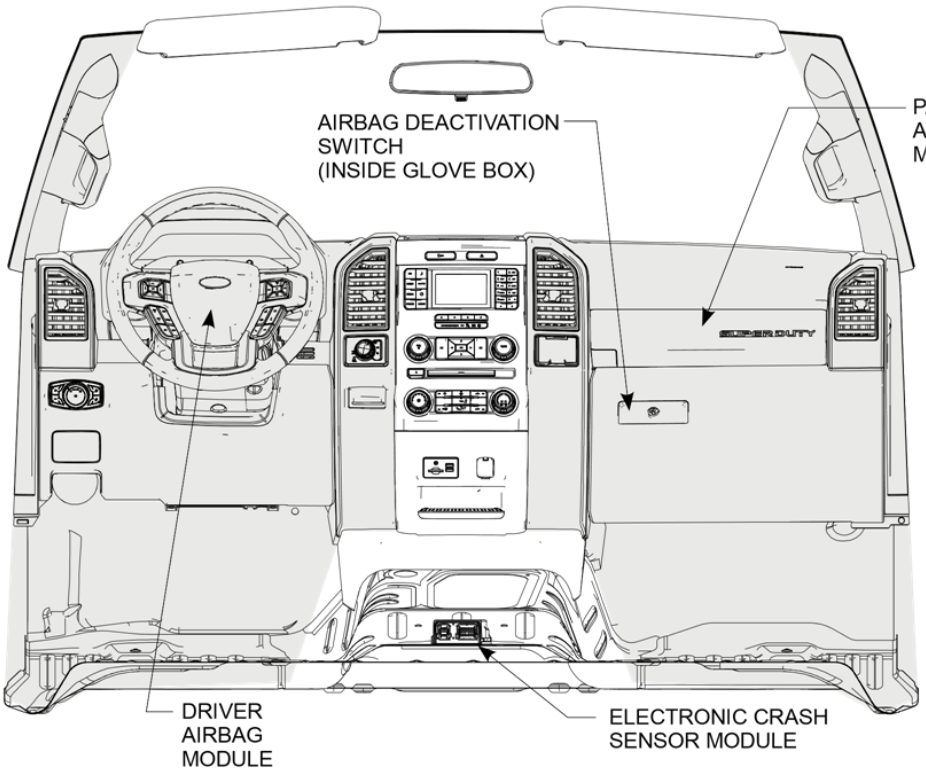
This vehicle, when completed, will conform to Standard 214, Side Impact Protection (Dynamic vehicle to pole requirements), if:

- No alterations, modifications, or replacements are made to all installed trim, headliner, doors, surrounding door and body structure, door hinges, door latches, door strikers, roof structure or any attaching hardware as provided by Ford Motor Company.
- The airbag Supplemental Restraint System (side airbags, seats, canopy air curtain) as installed by Ford Motor Company is not removed, relocated, modified nor altered (see Figures 3 and 4).
- The seat belts, seat belt warning system, are not removed, relocated, modified nor altered.
- The sensor system (sensors, RCM, wiring) and attaching hardware installed by Ford Motor Company are not removed, relocated, modified nor altered.
- No actions are taken which would impair the integrity or function of the airbags, curtains, and seat belts.
- The “2B” bolted frame crossmember located beneath the cab body installed by Ford Motor Company is not removed, relocated, modified nor altered (see Figure 5).

Because deletion of frontal passenger, driver/passenger side airbags, and curtain airbags or the addition of seats would change compliance with this Standard, Ford Motor Company makes no representations as to conformity with this Standard for any vehicle that has airbags deleted by order option or seats added by intermediate or final stage manufacturers.

This vehicle, when completed, will conform to Standard 214, Side Impact Protection (Static), if:

- No alterations, modifications, or replacements are made to all installed trim, headliner, doors, surrounding door and body structure, door hinges, door latches, door strikers, roof structure or any attaching hardware as provided by Ford Motor Company.


AIRBAG DEACTIVATION SWITCH (INSIDE GLOVE BOX)
PASSENGER AIRBAG MODULE
DRIVER AIRBAG MODULE
ELECTRONIC CRASH SENSOR MODULE

Do not install additional components in the shaded areas, nor alter or modify these areas.

Do not modify nor alter any components or areas of the vehicle in the vicinity of the components that are identified in this illustration.

Do not modify nor alter the front crash sensor located under the radiator on the front lower tie bar.

FIGURE 3 - SUPER DUTY F-SERIES OCCUPANT PROTECTION ZONE

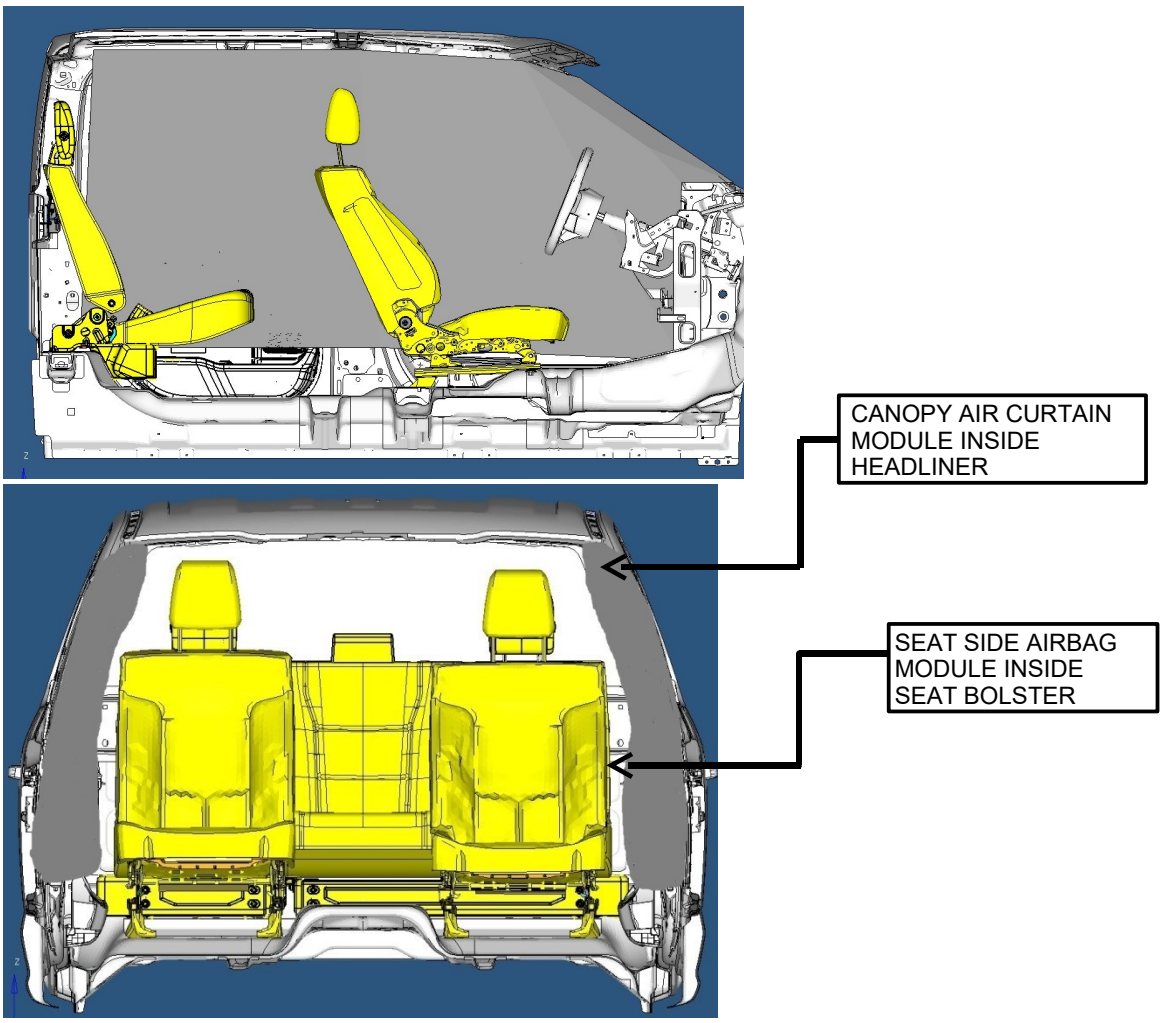


FIGURE 4 - SUPER DUTY AIRBAG SUPPLEMENTAL RESTRAINT SYSTEM

216a The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lb.] or less:

This vehicle, when completed, will conform to Standard 216a, Roof Crush Resistance, if:

- No alterations are made to the following components as installed by Ford Motor Company:
  - Cab and front end structural components including the cowl, cowl reinforcements, and front hinge pillar.
  - A and B pillars.
  - Front header and any roof bow.
  - Front and side door structure, door hinges or roller system, and door latching system.
  - Spot welds joining the stated parts.
  - Windshield and windshield mounting system.
- The Unloaded Vehicle Weight (UVW) of the completed vehicle does not exceed the value in Table 3 for the applicable chassis configuration.

226 NOTE:

The regulatory text of FMVSS 226 states: "Modified roof means the replacement roof on a motor vehicle whose original roof has been removed, in part or in total, or a roof that has to be built over the driver's compartment in vehicles that did not have an original roof over the driver's compartment."

226 The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lb.] or less:

This vehicle is equipped with Standard 226, Ejection Mitigation, compliant hardware from the forwardmost point of the windshield rearward and will conform to this Standard if:

- No alterations, modifications, or replacements are made to all installed trim, headliner, windows, window surrounding body structure, window treatments including grill covers, doors, surrounding door and body structure, door hinges, door latches, door strikers, roof structure or any attaching hardware as provided by Ford Motor Company.
- The airbag Supplemental Restraint System (side airbags, seats, canopy air curtain) as installed by Ford Motor Company is not removed, relocated modified nor altered.
- The seat belts, seat belt warning system, and attaching hardware installed by Ford Motor Company are not removed, relocated, modified nor altered.
- The sensor system (sensors, Restraints Control Module, wiring) and attaching hardware installed by Ford Motor Company are not removed, relocated, modified nor altered.
- No actions are taken which would impair the integrity and functions of the airbags, curtains, seat belts, windows and bulkheads.
- The body and all substructure including bulkheads aft of occupant seating, as installed by Ford Motor Company, is not removed, relocated, modified nor altered.

Because addition or deletion of frontal passenger, driver/passenger side airbags, curtain airbags, seats, bulkheads, doors or windows would change compliance with this Standard, Ford Motor Company makes no representations as to conformity with this Standard for any vehicle that has airbags, seats, bulkheads, doors or windows deleted by order option, or added or deleted by intermediate or final stage manufacturers.

226 Canadian Requirements:

The regulatory text of CMVSS 226 states:

"***Modified roof*** *means a roof on a vehicle that has been modified in whole or in part, or a roof added to a vehicle that did not have an original roof. (toit modifié)"*

In the case of a vehicle with a modified roof, a fixed security partition, or a seat that has been modified for a disabled person, which does not meet the performance requirements of Ejection Mitigation, a label must be provided in the vehicle and information included in the owner manual. See CMVSS 226 Sections 3 through 7 for details.

301 NOTE

The terms "body" or "body structure", in the Standard 301 statements that follow include not only the basic body or body structure, but also any equipment permanently attached to that body or body structure installed by the subsequent stage manufacturer.

The Unloaded Vehicle Weight of the completed vehicle may significantly affect its capability to meet the requirements of FMVSS 301, Fuel System Integrity. Completed vehicles manufactured by Ford Motor Company that are tested to demonstrate compliance with FMVSS 301 are loaded pursuant to S7.1.6 of the Standard. The test weights of these vehicles comprise the Unloaded Vehicle Weights including the weights of all available regular production options plus the loads specified by S7.1.6. These test weights are less than the respective designated Gross Vehicle Weight Ratings.

In addition to the specific statements below, refer to the *Body Builder Layout Book* as well as the "Design Recommendation" section of the *General Body Builders Layout Book* to assist in designing fuel systems and Second Unit Body attachments to be compatible with represented incomplete vehicles.

- If a fuel line is to be disconnected, refer to the appropriate Ford Service Manual for proper removal and installation procedures.
- When welding near fuel system components, all metallic components must be adequately shielded and protected from heat or weld splatter. All non-metallic components must be removed.

† NOTE:

Temporary removal of the front bumper and front bumper mounting system during manufacturing, and re-installation in accordance with the instructions provided in the Ford Truck Shop Manual should not adversely affect the compliance of a completed vehicle to Standard 301.

NOTE: Nylon Fuel Tubes

Some incomplete vehicles are equipped with nylon fuel tubes. In the event that the tubes require repair or replacement, only Ford approved parts or their equivalents should be used.

301 The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lb.] or less:

This vehicle, when completed, will conform to Standard 301, Fuel System Integrity, if:

- The following fuel system and frame components, as installed by Ford Motor Company, are not removed, relocated, altered, or modified in any way (except as specified in the representations following this paragraph):
  - Fuel tank(s) and attachment hardware, including sending unit, vapor valve, fuel tank shield, pressure transducer, and in-tank electric fuel pump
  - Fuel filler cap(s), pipe(s), hose(s), and attachment hardware
  - Fuel lines, routing, and attachments
  - Vapor line(s) and carbon canister (gasoline engine only)
  - Fuel pump
  - Fuel filter
  - Fuel water separator, fuel filter/primer, fuel line heater, and injection pump (diesel engine only)
  - Fuel shutoff function within crash sensor module
  - Trailer hitch receiver on Pickup Box Delete vehicles (Sales Code 66D)
- The frame-mounted brackets on the outboard LH side of Pickup Box Delete vehicles (Sales Code 66D) must remain attached as installed by Ford Motor Company. See Figure 6.
- Chassis Cab vehicles (non-Pickup Box Deletes) with a GVWR of 4356 kg [10,000 lb.] or less require installation of a blocker beam receiver assembly as described in Figure 7.
- No other alteration or modification made to the incomplete vehicle, as manufactured by Ford Motor Company, and no other components or structure installed by a subsequent stage manufacturer result in penetration (especially added fasteners pointed downward towards the fuel tank or other fuel system components), separation, or other damage to the fuel system or any portion thereof when the vehicle is tested in any manner specified by applicable provisions of Standard 301. †
- The Second Unit Body (SUB) center of gravity as installed by the subsequent stage manufacturer does not exceed the value in Table 1 for the applicable chassis configuration.
- The Unloaded Vehicle Weight (UVW) of the completed vehicle does not exceed the value in Table 3 for the applicable chassis configuration.
- The body installed by a subsequent stage manufacturer and the Ford-installed fuel system components are located and mounted as follows:
  - The body is mounted securely and is so designed that when the completed vehicle is tested in any manner specified by applicable provisions of Standard 301,
    a) body components do not contact any fuel system component at any time (other than at the points where the fuel system is permanently attached to the body), and,
    b) body deformation or movement relative to the frame does not cause any fuel system component to be penetrated, disconnected, or otherwise damaged.
  - Any extension of the vehicle frame must be constructed and attached so as to perform as a continuation of the vehicle frame when the completed vehicle is tested in any manner specified by applicable provisions of Standard 301.
  - Except for a service body upfit with a rear bumper, there must not be any components that tie a second unit body (SUB) to the frame rearward of a rear spring's rear hanger/shackle bracket. Note that components for lateral support may be bolted or welded to either the chassis (only) or the second unit body (only).
  - For a service body upfit with a rear bumper attached via a bracket that ties the second unit body (SUB) to the frame, the attaching bracket must not exceed 6.35 mm [0.25 in] gauge thickness
  - For platform/stake body upfits only, second unit body (SUB) longitudinal rail supports must not exceed 6.35 mm [0.25 in] gauge thickness nor exceed inertial properties of:
    Area: 1300 mm2 [2.02 in2]
    Inertia about the lateral axis (Iyy): 3.2E + 6 mm4
    Inertia about the vertical axis (Izz): 2.5E + 5 mm4
  - The front end of the body installed by the subsequent stage manufacturer is located at least 76.2 mm [3.0 in] rearward of the rearmost point of the cab.
  - The fuel filler cap(s), pipe(s), hose(s), and attachment hardware are installed as shown in Figures 8 and 9. All components must be securely retained to remain intact when the completed vehicle is tested in any manner specified by applicable provisions of Standard 301.

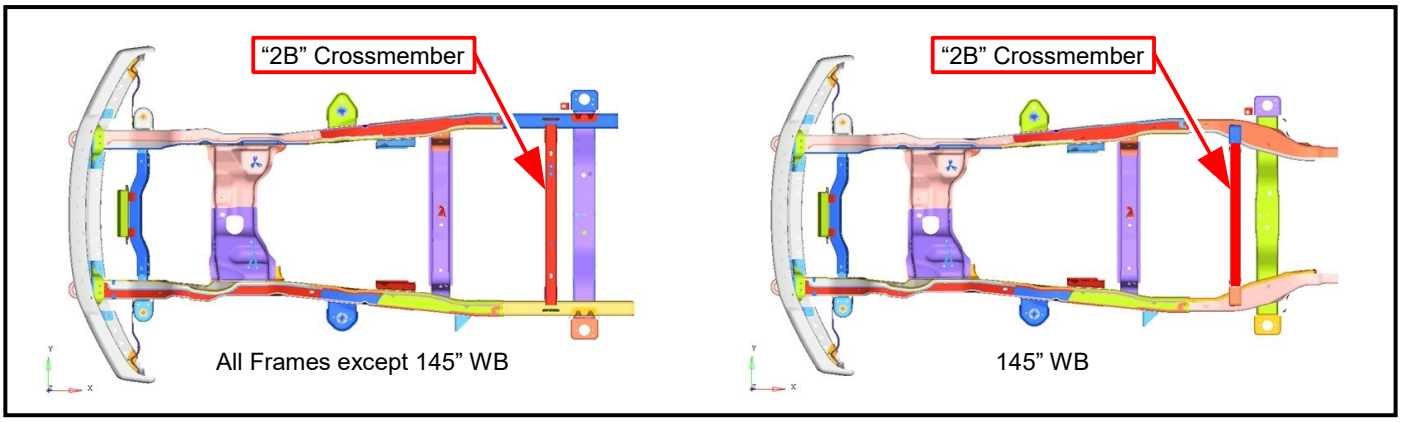


FIGURE 5 - SUPER DUTY "2B" BOLTED FRAME CROSSMEMBER LOCATED UNDER CAB

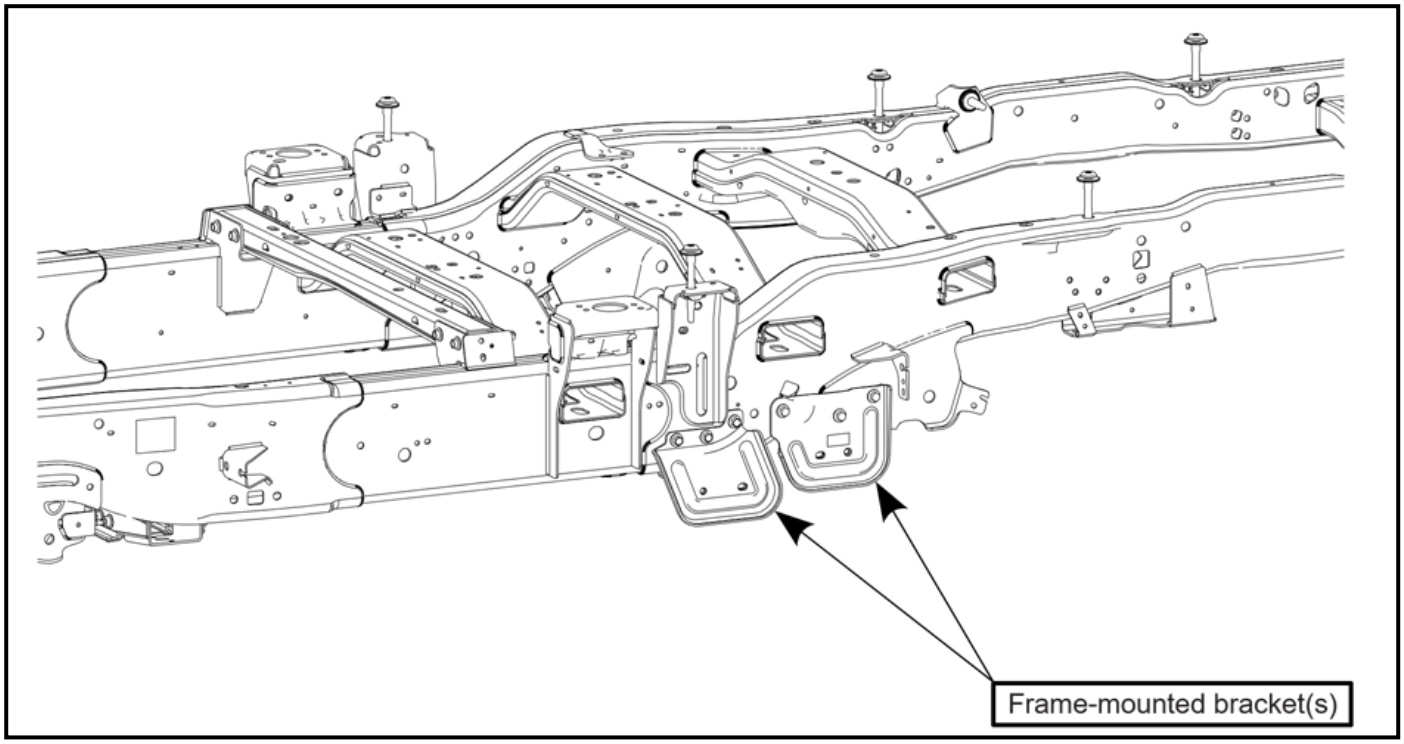


FIGURE 6 - LH FRAME-MOUNTED BRACKET(S) REQUIRED ON NON-SERVICE APPLICATION SECOND UNIT BODY (SUB) INSTALLATIONS (E.G. STAKE BODY, PLATFORM, ETC.) (PICKUP BOX DELETE ONLY)

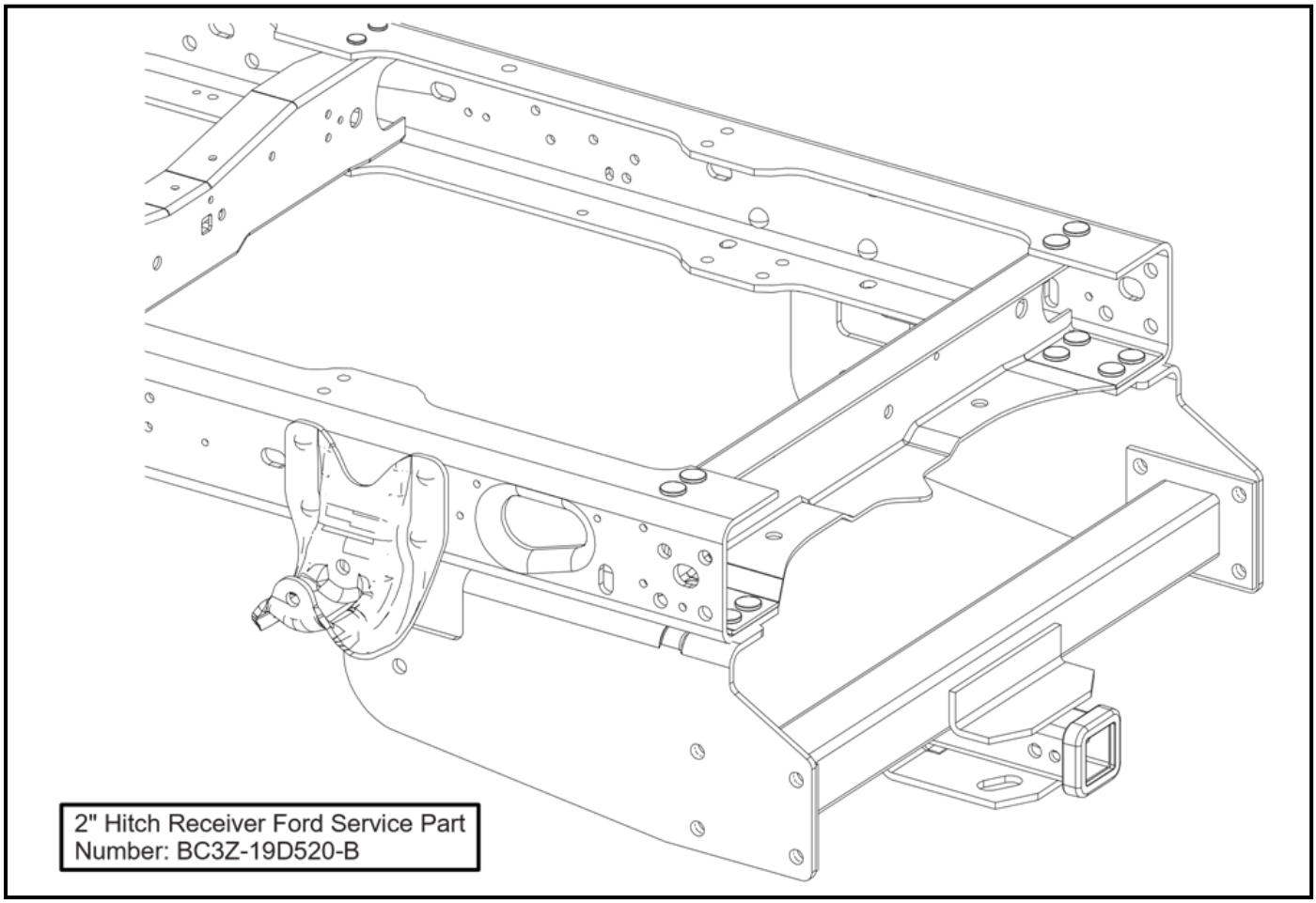


FIGURE 7 - HITCH RECEIVER FOR F-350 SRW CHASSIS CAB

TABLE 3

MAXIMUM UNLOADED VEHICLE WEIGHT (UVW) OF COMPLETED VEHICLE

(Note: This information does not apply to vehicles over 4536 kg [10,000 lb.] GVWR)

Model / Cab	Frame Width	Drive	Maximum UVW kg [lb.]	
			Engine	
			6.2L Gas 7.3L Gas	6.7L Diesel
PICKUP BOX DELETE				
F-250 / 350 Regular Cab	Wide	4x2 4x4	3547 [7819]	3515 [7749]
F-250 / 350 Super Cab			3547 [7819]	3905 [8608]
F-250 / 350 Crew Cab			3547 [7819]	3905 [8608]
CHASSIS CAB				
F-250 / 350 Regular Cab	Narrow	4x2 4x4	3769 [8308]	3769 [8308]
F-250 / 350 Super Cab			3769 [8308]	3769 [8308]
F-250 / 350 Crew Cab			3769 [8308]	3769 [8308]

301 Canadian Requirements:

The Canadian loading requirements are provided in Section 3.3 of "*Test Method 301 Fuel System Integrity*", revised: February 8, 2001, and should be substituted wherever references to FMVSS 301, Section 7.1.6, loading requirements have been made in the statements of conformity for Standard 301.

301.1 The statement below is applicable to all incomplete vehicle types

This incomplete vehicle does not comply with CMVSS Standard 301.1, LPG Fuel System Integrity. Ford Motor Company makes no representation as to conformity with this Standard.

301.2 The statement below is applicable to all incomplete vehicle types:

This incomplete vehicle does not comply with CMVSS Standard 301.2, CNG Fuel System Integrity. Ford Motor Company makes no representation as to conformity with this Standard.

302 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Standard 302, Flammability of Interior Materials, if:

- No alterations are made to those components covered by this Standard which are installed by Ford Motor Company.
- All components covered by Standard 302 which are added to the incomplete vehicle by subsequent stage manufacturers meet the flammability requirements of this Standard.

NOTE: UVW Restrictions

Restrictions regarding the Maximum Unloaded Vehicle Weight (UVW) of completed vehicles may also be found in the "Emission Certification Information" section of this document.

303 U.S. Requirements:

The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lb.] or less:

This incomplete vehicle does not comply with Standard 303, Fuel System Integrity of Compressed Natural Gas Vehicles. Ford Motor Company makes no representation as to conformity with this Standard.

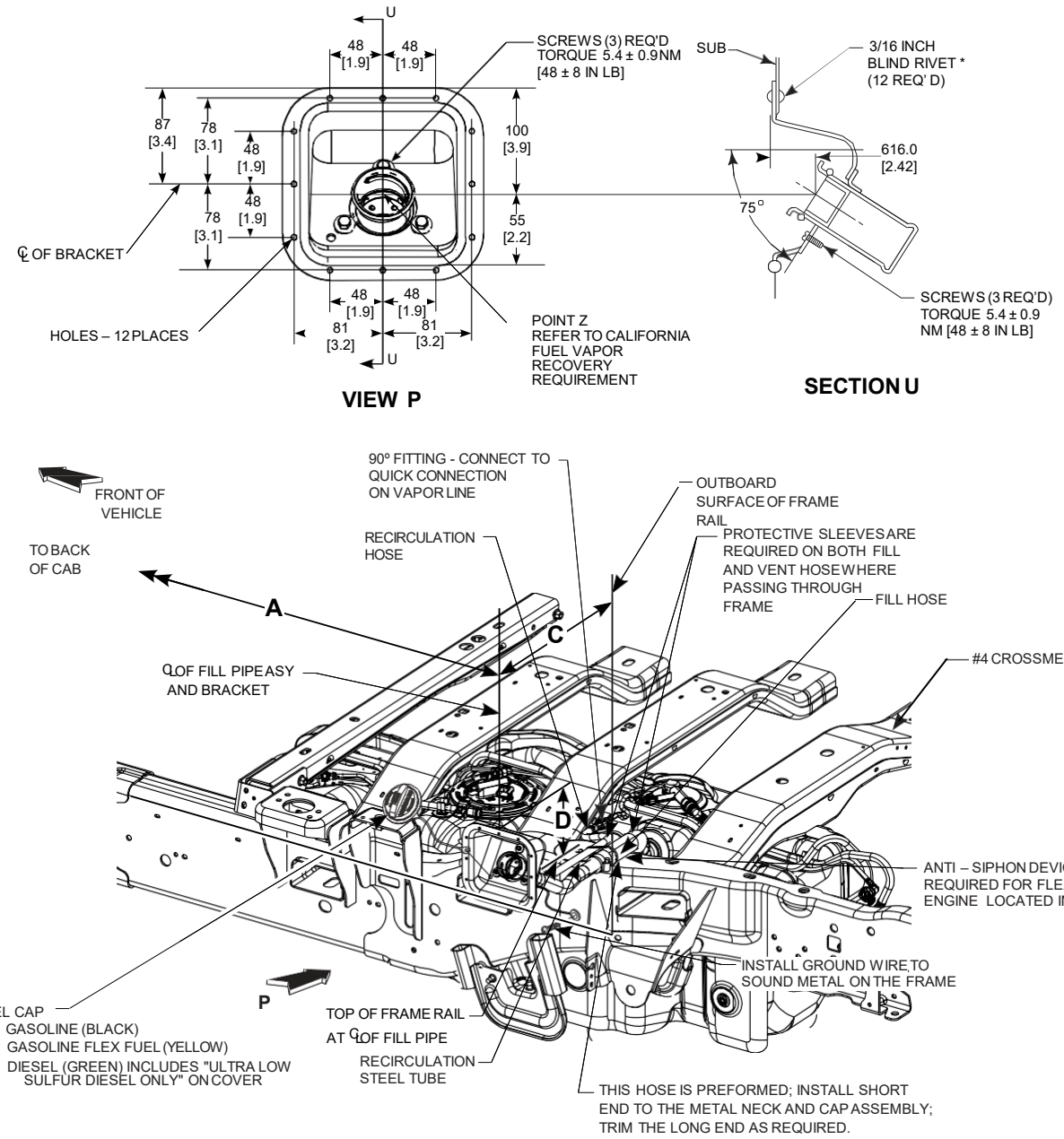
304 U.S. Requirements:

The statement below is applicable to all incomplete vehicle types:

This incomplete vehicle does not comply with Standard 304, Compressed Natural Gas Fuel Container Integrity. Ford Motor Company makes no representation as to conformity with this Standard.

305 The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lb.] or less:

This incomplete vehicle does not comply with Standard 305, Electric-Powered Vehicles: Electrolyte Spillage and Electrical Shock Protection; Ford Motor Company makes no representation as to conformity with this Standard


U
48 [1.9]
48 [1.9]
SCREWS (3) REQ'D TORQUE 5.4 ± 0.9 NM [48 ± 8 IN LB]
87 [3.4]
78 [3.1]
48 [1.9]
48 [1.9]
78 [3.1]
100 [3.9]
55 [2.2]
℄ OF BRACKET
HOLES – 12 PLACES
48 [1.9]
48 [1.9]
81 [3.2]
81 [3.2]
U
POINT Z
REFER TO CALIFORNIA FUEL VAPOR RECOVERY REQUIREMENT
VIEW P
SUB
3/16 INCH BLIND RIVET * (12 REQ' D)
616.0 [2.42]
75°
SCREWS (3 REQ'D) TORQUE 5.4 ± 0.9 NM [48 ± 8 IN LB]
SECTION U
FRONT OF VEHICLE
TO BACK OF CAB
A
90° FITTING - CONNECT TO QUICK CONNECTION ON VAPOR LINE
RECIRCULATION HOSE
OUTBOARD SURFACE OF FRAME RAIL
PROTECTIVE SLEEVES ARE REQUIRED ON BOTH FILL AND VENT HOSE WHERE PASSING THROUGH FRAME
FILL HOSE
C
℄ OF FILL PIPE EASY AND BRACKET
#4 CROSSMEMBER
D
ANTI – SIPHON DEVICE REQUIRED FOR FLEX FUEL ENGINE LOCATED IN HOSE
INSTALL GROUND WIRE TO SOUND METAL ON THE FRAME
P
FUEL CAP
GASOLINE (BLACK)
GASOLINE FLEX FUEL (YELLOW)
DIESEL (GREEN) INCLUDES "ULTRA LOW SULFUR DIESEL ONLY" ON COVER
TOP OF FRAME RAIL AT ℄ OF FILL PIPE
RECIRCULATION STEEL TUBE
THIS HOSE IS PREFORMED; INSTALL SHORT END TO THE METAL NECK AND CAP ASSEMBLY; TRIM THE LONG END AS REQUIRED.

MODEL		WHEELBASE (56 Inch CA)
Regular Cab		3596 [141.6]
Super Cab		4170 [164.2]
Crew Cab		4470 [176.0]
FUEL FILLER CUP LOCATION		
▽ **A**	**MIN**	620 [24.4]
	MAX	932 [36.7]
▽ **C**	**MIN**	540 [21.3]
	MAX	743 [29.2]
▽ **D**	**MIN**	267 [10.5]
	MAX	343 [13.5]

CA = Dimension from back of cab to ℄ of rear axle

NOTES:

▽ TORQUE ALL WORM GEAR DRIVEN HOSE CLAMPS TO 4.8 ± 0.8 NM [43 ± 7 IN LB]

[ ] DIMENSIONS ARE INCHES

* NOT SUPPLIED BY FORD MOTOR COMPANY

▽ CRITICAL CONTROL ITEM

Remove and discard the Ford installed fuel system components (provided for shipping purposes only) except save and reuse the metal neck and cap assembly.

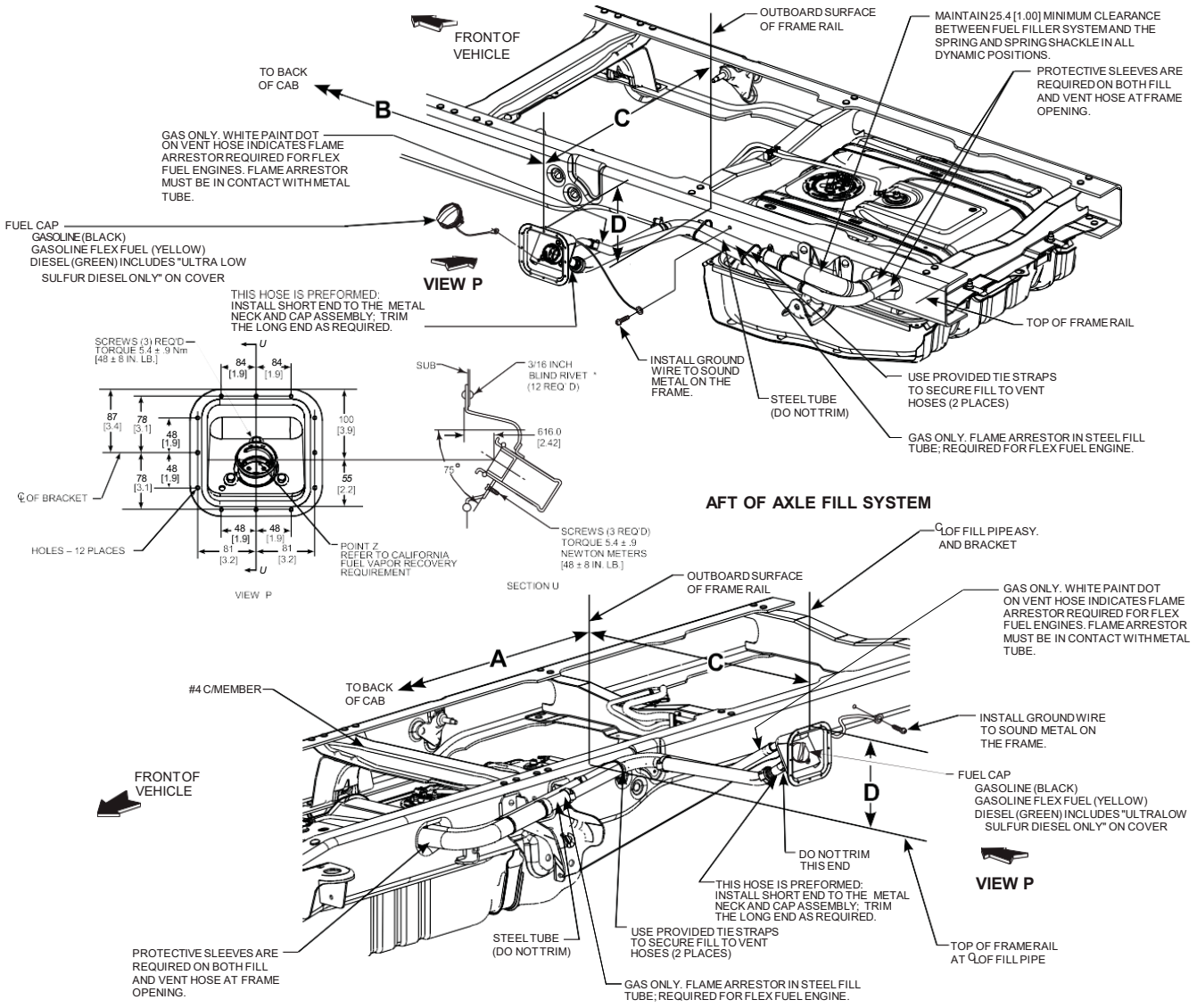
Use the new hoses, pipes, scuff guards, tie wraps, and clamps provided in the dunnage kit.

The completed fuel fill system must provide a 4 degree minimum continuous downward slope to the fuel tank. Additional support may be required to prevent hose sagging which could cause spray or spitback during normal fueling operations.

Do not extend the fuel fill system outboard of the second unit body.

The Carbon Canister Fresh Air Tube should be secured in a clean location, There are no specific requirements for location or orientation.

FIGURE 8 - SUPER DUTY F-SERIES WIDE FRAME PICKUP BOX DELETE FUEL FILLER PIPE INSTALLATION


FRONT OF VEHICLE
TO BACK OF CAB
B
C
D
OUTBOARD SURFACE OF FRAME RAIL
MAINTAIN 25.4 [1.00] MINIMUM CLEARANCE BETWEEN FUEL FILLER SYSTEM AND THE SPRING AND SPRING SHACKLE IN ALL DYNAMIC POSITIONS.
PROTECTIVE SLEEVES ARE REQUIRED ON BOTH FILL AND VENT HOSE AT FRAME OPENING.
GAS ONLY. WHITE PAINT DOT ON VENT HOSE INDICATES FLAME ARRESTOR REQUIRED FOR FLEX FUEL ENGINES. FLAME ARRESTOR MUST BE IN CONTACT WITH METAL TUBE.
FUEL CAP
GASOLINE (BLACK)
GASOLINE FLEX FUEL (YELLOW)
DIESEL (GREEN) INCLUDES "ULTRA LOW SULFUR DIESEL ONLY" ON COVER
VIEW P
THIS HOSE IS PREFORMED: INSTALL SHORT END TO THE METAL NECK AND CAP ASSEMBLY; TRIM THE LONG END AS REQUIRED.
TOP OF FRAME RAIL
INSTALL GROUND WIRE TO SOUND METAL ON THE FRAME.
STEEL TUBE (DO NOT TRIM)
USE PROVIDED TIE STRAPS TO SECURE FILL TO VENT HOSES (2 PLACES)
GAS ONLY. FLAME ARRESTOR IN STEEL FILL TUBE; REQUIRED FOR FLEX FUEL ENGINE.
SCREWS (3) REQ'D TORQUE 5.4 ± .9 Nm [48 ± 8 IN. LB.]
SUB
3/16 INCH BLIND RIVET * (12 REQ'D)
616.0 [2.42]
75°
℄ OF BRACKET
HOLES – 12 PLACES
POINT Z REFER TO CALIFORNIA FUEL VAPOR RECOVERY REQUIREMENT
SCREWS (3 REQ'D) TORQUE 5.4 ± .9 NEWTON METERS [48 ± 8 IN. LB.]
VIEW P
SECTION U
AFT OF AXLE FILL SYSTEM
℄ OF FILL PIPE ASY. AND BRACKET
OUTBOARD SURFACE OF FRAME RAIL
GAS ONLY. WHITE PAINT DOT ON VENT HOSE INDICATES FLAME ARRESTOR REQUIRED FOR FLEX FUEL ENGINES. FLAME ARRESTOR MUST BE IN CONTACT WITH METAL TUBE.
A
C
#4 C/MEMBER
TO BACK OF CAB
INSTALL GROUND WIRE TO SOUND METAL ON THE FRAME.
FRONT OF VEHICLE
D
FUEL CAP
GASOLINE (BLACK)
GASOLINE FLEX FUEL (YELLOW)
DIESEL (GREEN) INCLUDES "ULTRA LOW SULFUR DIESEL ONLY" ON COVER
VIEW P
DO NOT TRIM THIS END
THIS HOSE IS PREFORMED: INSTALL SHORT END TO THE METAL NECK AND CAP ASSEMBLY; TRIM THE LONG END AS REQUIRED.
STEEL TUBE (DO NOT TRIM)
USE PROVIDED TIE STRAPS TO SECURE FILL TO VENT HOSES (2 PLACES)
TOP OF FRAME RAIL AT ℄ OF FILL PIPE
PROTECTIVE SLEEVES ARE REQUIRED ON BOTH FILL AND VENT HOSE AT FRAME OPENING.
GAS ONLY. FLAME ARRESTOR IN STEEL FILL TUBE; REQUIRED FOR FLEX FUEL ENGINE.

MIDSHIP FUEL FILL SYSTEM (OPTIONAL ON CHASSIS CAB)

		(CA) BACK OF CAB TO CENTERLINE OF REAR AXLE			
		60 inch CA	84 inch CA	108 inch CA	120 inch CA
		WHEELBASE			
Regular Cab Super Cab Crew Cab		3691mm [145.3] 4265mm [167.9] 4565mm [179.8]	4301mm [169.3] 4875mm [191.9] 5175mm [203.8]	4911mm [193.3]	5215mm [205.3]
▽A	MIN	864mm [34.0]	1473mm [68.0]	2083mm [82.0]	2388mm [94.0]
	MAX	1029mm [40.5]	1638mm [64.5]	2553mm [100.5]	2553mm [100.5]
▽B	MIN	1981mm [78.0]	2591mm [102.0]	3200mm [126.0]	3505mm [138.0]
	MAX	2159mm [85.0]	2769mm [109.0]	3378mm [133.0]	3683mm [145.0]
▽C	MIN	584mm [23.0]	584mm [23.0]	584mm [23.0]	584mm [23.0]
	MAX	787mm [31.0]	787mm [31.0]	787mm [31.0]	787mm [31.0]
▽D	MIN *	267mm [10.5]	267mm [10.5]	267mm [10.5]	267mm [10.5]
	MAX	343mm [13.5]	343mm [13.5]	343mm [13.5]	343mm [13.5]

* Preferred minimum for diesel applications is 292mm [11.5in]

NOTES:

▽ TORQUE ALL WORM GEAR DRIVEN HOSE CLAMPS TO 4.8 ± 0.8 NM [43 ± 7 IN LB]

[ ] DIMENSIONS ARE INCHES

* NOT SUPPLIED BY FORD MOTOR COMPANY

▽ CRITICAL CONTROL ITEM

Remove and discard the Ford installed fuel system components (provided for shipping purposes only) except save and reuse the metal neck and cap assembly.

Use the new hoses, pipes, scuff guards, tie wraps, and clamps provided in the dunnage kit.

The completed fuel fill system must provide a 4 degree minimum continuous downward slope to the fuel tank. Additional support may be required to prevent hose sagging which could cause spray or spitback during normal fueling operations.

Do not extend the fuel fill system outboard of the second unit body.

The installation of Tube Extension F81A-9B149-HA will permit the location aft-of-axle fuel fill housing to be no further rearward than the centerline of the fill hose as it passes through the frame.

FIGURE 9 - SUPER DUTY F-SERIES NARROW FRAME CHASSIS CAB FUEL FILLER PIPE INSTALLATION

403 The statement below is applicable to all incomplete vehicle types:

This incomplete vehicle does not comply with Standard 403, Platform Lift Systems for Motor Vehicles. Ford Motor Company makes no representation as to conformity with this Standard.

404 The statement below is applicable to all incomplete vehicle types:

This incomplete vehicle does not comply with Standard 404, Platform Lift Installations in Motor Vehicles. Ford Motor Company makes no representation as to conformity with this Standard.

Part 393.67 Parts and Accessories Necessary for Safe Operation – Liquid Fuel Tanks

The fuel tanks listed below will conform to Part 393.67, Parts and Accessories Necessary for Safe Operation – Liquid Fuel Tanks, if the fuel tank as provided by Ford Motor Company is not altered on the completed vehicle.

- 40 gallon fuel tank supplied on a Ford Chassis Cab

Part 565 U.S. Requirements:

This vehicle, when completed, will conform to Part 565, Vehicle Identification Number (VIN) Requirements, if the vehicle identification number printed on the label affixed to the cover of this manual is mounted and displayed in accordance with the requirements of this Standard.

Part 565.13 The statement below is applicable to all incomplete vehicle types:

This vehicle, when completed, will conform to Part 565.13, General Requirements, if the Vehicle Identification Number tag mounted on the top of the instrument panel is not removed, altered, or modified and no actions are taken by the subsequent stage manufacturer that would obstruct the readability of the Vehicle Identification Number tag mounted on the top of the instrument panel.

Part 567 / CMVSR Section 6.6

The statement below is applicable to all incomplete vehicle types:

This incomplete vehicle does not comply with the intermediate and final stage manufacturer requirements of Part 567 - Certification, nor the Canadian Motor Vehicle Safety Regulations, Section 6.6 – Final-stage Manufacturer's Compliance Label. It is the responsibility of the intermediate and final stage manufacturers to provide additional labeling to meet these requirements. Ford Motor Company makes no representation as to conformity.

1106 Canadian Requirements:

The statement below is applicable to all incomplete vehicle types with a GVWR of 4536 kg [10,000 lb.] or less:

This vehicle, when completed, will conform to Standard 1106, Noise Emissions, Section 2, if noise control devices or elements of design are not modified, removed, or rendered inoperative. Examples of such devices or elements of design are:

- Fender apron absorbers, fender apron barriers, underbody noise shields and acoustic absorption material.
- Engine speed governor or electronic control intended to control maximum engine speed.
- Engine air duct, air intake choke or silencer, air cleaner and air cleaner element.
- Exhaust system components including the catalyst inlet pipe, muffler, outlet pipe, resonator and diffuser.
- Engine cooling fan and cooling fan clutch.

1106 Canadian Requirements:

The statement below is applicable to all incomplete vehicle types with a GVWR of more than 4536 kg [10,000 lb.]

This vehicle, when completed, will conform to Standard 1106, Noise Emissions, Section 4, if noise control devices or elements of design are not modified, removed, or rendered inoperative. Examples of such devices or elements of design are:

- Fender apron absorbers, fender apron barriers, underbody noise shields and acoustic absorption material.
- Engine speed governor or electronic control intended to control maximum engine speed.
- Engine air duct, air intake choke or silencer, air cleaner and air cleaner element.
- Exhaust system components including the catalyst inlet pipe, muffler, outlet pipe, resonator and diffuser.
- Engine cooling fan and cooling fan clutch.

VEHICLE IDENTIFICATION

Refer to the "Vehicle Description" section of this manual for additional information. Incomplete vehicles produced by Ford Motor Company require, for certain applications, optional Prep Packages or trim codes which are listed on the Completed Vehicle Types chart.

CANADIAN RADIO FREQUENCY INTERFERENCE (RFI) INFORMATION

All vehicles powered by spark ignition engines (e.g.: gasoline, natural gas, or propane engines) and manufactured in Canada or for sale or use in Canada are subject to Canadian Radiocommunication Regulations per Interference-Causing Equipment Standards (ICES-002) and applicable test method according to "CAN/CSA-C108.4-06". Violation of these regulations is punishable by fine or imprisonment. This Ford-built incomplete vehicle was designed and manufactured to be capable of meeting the regulatory requirements or such modifications thereof as may have been authorized by the Department of Communications. However, because Ford Motor Company has no control over how this incomplete vehicle is completed by subsequent stage manufacturers, Ford Motor Company does not represent that the completed vehicle incorporating the Ford built components will comply with applicable requirements.

The following information is supplied to subsequent stage manufacturers to help them avoid increasing the RFI emissions of this vehicle in the course of completing it.

For any completed vehicle, additional measures may be needed to adequately suppress RFI emissions. Affected components could include spark plugs, ignition wires, ignition coils, ground straps, ignition component shields, accessory drive belts, instrument voltage regulator suppressor assembly, and ignition coil suppressor assembly.

More specifically:

- All components required to suppress RFI emissions, which are removed during service, repair, or completion of the vehicle, must be reinstalled in the manner in which they were installed by Ford Motor Company.
- Shields on ignition coils must remain installed.
- Replacement spark plugs, ignition wires, and ignition coils must be equivalent in their RFI suppression properties to original equipment.
- Electrical grounds on all components must be retained.
- Metallic components installed on the body or chassis must be grounded to the chassis.
- Electrical circuits added to the vehicle must not be installed near the high voltage ignition components.
- Only "static conductive" accessory drive belts should be used. Fan, water pump, power steering, and other belts should be of the OEM type or equivalent that will not build up a static electrical charge.
- Engine compartment wiring must not be rerouted in any manner.
- The Powertrain Control Module (PCM) must not be relocated from the position as installed by Ford Motor Company.

Additional guidance for installing two-way mobile radios can be found via the web at www.fordemc.com/docs/download/Mobile_Radio_Guide.pdf

DAYTIME RUNNING LAMP (DRL)

Compliance representations for CMVSS 108, Lighting System and Retroreflective Devices, are in the "Statements of Conformity" section of this manual.

EMISSION CERTIFICATION INFORMATION

CAUTION:

U.S.:

Vehicles are emission certified for registration in specific areas of the United States. For example, **vehicles certified and labeled for sale in California can not be sold in the states that require Federally certified vehicles and these vehicles certified to Federal standards can not be sold in states that require California certified vehicles.** It is the subsequent stage manufacturer's responsibility to purchase a vehicle certified for the state/area in which the vehicle will be sold. EPA has stated that under certain circumstances they will not enforce these requirements. For further guidance consult EPA's "policy on cross border sales requirements. of California vehicles."

CANADA:

If the completed vehicle is intended for sale or use in Canada, the intermediate or final stage manufacturer must insure that the incomplete vehicle is ordered through a Canadian dealer or is ordered from Ford Motor Company with the appropriate Canadian market option code. Failure to do so may result in an incomplete vehicle that is built with an emissions system and labeling that are not in compliance with the requirements of the Canadian Environmental Protection Act

VEHICLE EMISSION CONTROL INFORMATION LABEL

To meet United States Environmental Protection Agency regulations, the Vehicle Emission Control Information (VECI) label must be affixed in the engine compartment in a location that is readily visible after installation and in such a manner that it cannot be removed without destroying or defacing the label. The label shall not be affixed to any equipment that is easily detached from the vehicle.

The Chassis Cab VECI label is affixed to the forward underside of the engine hood. No components shall be installed which visibly obscure the label in any way.

For Canadian requirements, consult On-Road Vehicle and Engine Emission Regulations (SOR).

EMISSION CONTROL HARDWARE

Any body builder, installer, or subsequent stage manufacturer must assure that all emission control hardware furnished with incomplete vehicles is on the vehicle and is operational and that applicable instructions for incorporating such hardware into the completed vehicle's electrical or mechanical systems are strictly followed.

Further, to avoid any question of certification coverage, approval of any modification or use of an engine or vehicle which may alter or render inoperative any of the emission control components must be obtained from the United States Environmental Protection Agency by the manufacturer making such modification or use prior to distribution, sale, offering for sale, introduction, or delivery for introduction of the subject vehicle into U.S. commerce. Additionally, the manufacturer making such modification or use must obtain approval from the California Air Resources Board if the new vehicle will be delivered for sale or use in the State of California.

HIGH ALTITUDE REQUIREMENTS

United States Environmental Protection Agency regulations do not contain unique emission certification requirements for trucks that will be sold or delivered to customers for principal use above 1,219 m [4,000 ft].

EPA SPECIAL EMERGENCY VEHICLE EMISSIONS

United States Environmental Protection Agency (EPA) regulations allow unique Federal emission calibrations for ambulance and fire/rescue vehicles; these calibrations are not California Air Resources Board (CARB) approved. Vehicles ordered with the Ambulance (47L) or Fire/Rescue (47J) Prep Packages with EPA Special Emergency Vehicle Emissions (diesel engine only) must meet the definition of Emergency Vehicle, "an Ambulance or Fire Truck" per 40 CFR 86.1803.01 in the Federal Register.

EXTERIOR NOISE

New vehicles with a gross vehicle weight rating in excess of 4536 kg [10,000 lb.], with a partially or wholly enclosed operator's compartment and manufactured for use in the United States, as completed, must comply with U.S. Environmental Protection Agency exterior noise emission regulations for medium and heavy trucks (40 CFR Part 205, Subpart B) which establish a noise emission limit of 80 dB(A).

TAMPERING WITH NOISE CONTROLS

Federal law prohibits the removal or rendering inoperative by any person, other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into such vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use. Federal Law also prohibits the use of such vehicle after such device or element of design has been removed or rendered inoperative by any person. Among those acts presumed to constitute tampering are the acts listed below:

- Removal of fender apron absorbers, fender apron barriers, underbody noise shields, or acoustical absorptive material.
- Removal of or rendering inoperative the engine speed governor so as to allow engine speed to exceed manufacturer's specifications.
- Removal or modification of air duct, air intake choke or silencer, air cleaner, or air cleaner element.
- Removal of, or rendering inoperative, exhaust system components including the catalyst inlet pipe, muffler, outlet pipe, resonator, or diffuser.
- Removal of the fan shroud. Removal of or rendering inoperative the fan clutch.

New vehicles manufactured for sale in Canada must comply with applicable provisions of Canada Motor Vehicle Safety Standard 1106, Noise Emissions.

UNLEADED GASOLINE LABEL

Regulations no longer require the manufacturer to affix permanent labels reading "Unleaded Gasoline Only" or "Unleaded Fuel Only" to vehicles destined for sale in the United States or Canada. Such labels may, however, be required for vehicles sold into other markets. It is the responsibility of the body builder, installer, or any subsequent manufacturer to properly label vehicles for the market in which they are sold.

WARRANTY AND MAINTENANCE

A copy of the appropriate Ford Owner's Manual and Warranty Guide must be installed in every vehicle prior to sale to the ultimate purchaser in order to provide emission systems warranty information and maintenance schedules. It also provides, where required by EPA noise control regulations for vehicles with GVWR over 4536 kg [10,000 lb.], noise emissions warranty information, instructions for maintenance, use, and repair of vehicle noise emission control systems, a maintenance record format, and list of prohibited tampering acts.

IMPORTANT:

It is the responsibility of the body builder, installer, or subsequent stage manufacturer to ensure that the maximum completed vehicle curb weight and frontal area specified by Ford Motor Company are not exceeded. If these restrictions are exceeded, or if the vehicle is modified such that it will not comply with applicable emission standards throughout its useful life, the body builder, installer, or subsequent stage manufacturer will be considered a manufacturer for purposes of complying with U.S. Federal, California, or Canadian exhaust and evaporative emission requirements, and Federal fuel economy standards, labeling, and certain other requirements.

IMPORTANT:

For purposes of Government Regulation, a body builder, installer, or any subsequent manufacturer may be considered a manufacturer.

FRONTAL AREA AND WEIGHT RESTRICTIONS

Some heavy-duty incomplete vehicles are certified using chassis certification protocol and will require vehicle weight and frontal area restrictions to retain emission certification. If your vehicle is affected, the frontal area and unloaded vehicle weight information will be found on the VECI label, which is located in the engine compartment.

Incomplete vehicles with engines certified using heavy-duty engine protocol are not limited by weight and frontal area restriction for exhaust emissions.

It is important that the final stage manufacturer observe vehicle restrictions from vehicle safety requirements located elsewhere in this manual.

The Frontal Area and Maximum Unloaded Vehicle Weight restrictions shown in Table 4 apply to the completed vehicle.

NOTE: Frontal area requirement includes the cab and second unit body. Additional limitations on Maximum UVW for vehicles with GVWR of 4536 kg [10,000 lb.] or less are specified in the F/CMVSS Statements of Conformity.

MALFUNCTION INDICATOR LIGHT (MIL)

The “Malfunction Indicator Light” is used to indicate malfunctions of the engine’s emission control system and certain powertrain emissions-related components.

- For all incomplete vehicles covered by this manual, the MIL is Ford installed and operational in the instrument panel.

EVAPORATIVE EMISSIONS

All Federal light and heavy duty trucks and all California vehicles with gasoline engines are required to comply with evaporative emissions requirements established by the Environmental Protection Agency or the California Air Resources Board. Production fuel systems supplied on incomplete trucks manufactured by Ford Motor Company comply with these requirements. If the subsequent stage manufacturer adds to or modifies the air intake system or fuel system in any manner, it becomes the responsibility of the modifier to assure compliance with the applicable regulations.

CALIFORNIA HEAVY-DUTY DIESEL ENGINE IDLING REQUIREMENTS

The California Air Resources Board approved a regulatory measure, effective January 1, 2008, to further reduce emissions of toxics and criteria pollutants by limiting idling of new diesel engine trucks with a gross vehicle weight rating (GVWR) greater than 14,000 pounds, with vocational exemptions for certain buses, school buses, recreational vehicles, medium duty vehicles, military tactical vehicles and authorized emergency vehicles, as defined in various California Vehicle Code sections. The regulation primarily requires manufacturers of new California certified 2008 and subsequent model-year diesel engines in these trucks to either incorporate a system that automatically shuts the engine down after five minutes of continuous idling or to meet clean-idle emission requirements.

- A Super Duty F-Series diesel engine incomplete vehicle with a GVWR greater than 14,000 pounds, as manufactured by Ford Motor Company to be sold as a California emission labeled vehicle, has a “Clean Idle” engine decal certifying compliance to California diesel engine idle emission regulations. Should modifications be made by a final stage vehicle manufacturer to the diesel engine emissions system on vehicles with a GVWR greater than 14,000 pounds, compliance to California clean-idle requirements may be compromised; it is the responsibility of the final stage manufacturer to comply with California emission regulations.

CALIFORNIA FUEL VAPOR RECOVERY

California regulations require that the vehicle fuel systems be designed to accommodate a vapor recovery fueling nozzle including unobstructed access to the fill pipe. Fuel filler pipes installed as shown in Figures 8 and 9 will comply with the “Specifications For Fill Pipes and Openings of Motor Vehicle Fuel Tanks” referenced in Title 13 California Administrative Code provided no part of the aftermarket body, as installed, intrudes within a 254 mm [10 in] radius cylinder centered on the fuel filler port, with its axis parallel to the ground, starting at the outer-most surface of the Ford supplied fuel filler housing and projecting outward away from the body.

TABLE 4
SUPER DUTY EMISSIONS RESTRICTIONS FOR COMPLETED VEHICLES

Configuration	Engine	GVWR	Max Frontal Area m^2 [ft^2]	Max UVW kg [lb.]
Pickup Box Delete	6.2L Gas	4536 kg [10,000 lbs.] or less	5.57 [60.0]	4309 [9500]
		Over 4536 kg [10,000 lbs.]	5.11 [55.0]	5216 [11,500]
	6.7L Diesel	4536 kg [10,000 lbs.] or less	3.81 [41.0]	4309 [9500]
		Over 4536 kg [10,000 lbs.]	4.74 [51.0]	4763 [10,500]
Chassis Cab	6.2L Gas	4536 kg [10,000 lbs.] or less	6.69 [72.0]	4309 [9500]
		Over 4536 kg [10,000 lbs.]	6.69 [72.0]	5216 [11,500]
	6.7L Diesel	All	Unrestricted	Unrestricted
	7.3L Gas	All	Unrestricted	Unrestricted

OZONE DEPLETING SUBSTANCE (ODS)

The Clean Air Act of 1990, Section 611 requires any product (i.e., completed vehicle) containing or manufactured with any Class I Ozone Depleting Substance on, or after, May 15,1993 must be identified with a “clearly and conspicuously attached label.”

Ford Motor Company has eliminated Class I ODS from its manufacturing processes. All Ford Truck incomplete vehicles will not have Class I ODS content.

Manufacturers, including subsequent stage manufacturers, are required to label their products if the product, including any component (whether manufactured by that manufacturer or not), contains a Class I ODS or if the manufacturer used a Class I ODS in the manufacturing of the product. If a vehicle is so affected by a Class I ODS, that information must be placed on a product warning label. See EPA regulations on wording, placement, size, and combining labels; in Canada consult the appropriate Provincial or Territorial Ministry of Environment.

CALIFORNIA MOTOR VEHICLE EMISSION CONTROL LABEL

To meet California emission certification regulations, the Vehicle Emission Control Information (VECI) label must be welded, riveted, or otherwise permanently attached to an area within the engine compartment or to the engine in such a way that it will be readily visible to the average person after installation of the engine in a vehicle. In selecting an acceptable location, the manufacturer shall consider the possibility of accidental damage (e.g., possibility of tools or sharp instruments coming in contact with the label). The label shall be affixed in such a manner that it cannot be removed without being destroyed or defaced, and shall not be affixed to any part which is likely to be replaced during the vehicle’s useful life. For motor vehicles rated at 6350 kg [14,000 lb.] GVWR or less, the label shall not be affixed to any equipment which is easily detached from the vehicle. As used in these specifications, readily visible to the average person shall mean that the label shall be readable from a distance of 460 mm [18 in] without any obstructions from vehicle or engine parts (including all manufacturer available optional equipment), except for flexible parts, (e.g., vacuum hoses, ignition wires). Alternately, information required by these specifications to be printed on the label shall be no smaller than 8-point type size provided that no vehicle or engine parts (including all manufacturer available optional equipment), except for flexible parts that can be moved out of the way without disconnection, obstruct the label.

Completed vehicles for retail sale in California require a machine-readable Vehicle Identification Number (VIN) barcode label made of paper, plastic, metal, or other permanent material which shall be affixed in a readily visible location to either the door-latch post next to the driver’s seating position, the door edge that meets this door-latch post, or above the instrument panel in a location clearly visible through the lower left corner of the windshield. All incomplete vehicles will conform to this standard.

For the VECI and VIN labels, sufficient clearance shall be provided to use a non-contact barcode reading wand. For the VECI label, the label and any adhesives used shall be designed to withstand typical vehicle environment conditions in the area where the label is attached for the vehicle’s total expected life. Typical vehicle environmental conditions shall include, but are not limited to, exposure to engine lubricants and coolants (e.g., gasoline, motor oil, brake fluids, water, ethylene glycol), under hood temperatures, steam cleaning, and paints or paint solvents.

RADIO FREQUENCY INTERFERENCE (RFI)

The ignition system on your vehicle has been designed to be capable of compliance with RFI requirements established by the Canadian government. However, because Ford Motor Company has no control over how an incomplete vehicle is completed by subsequent stage manufacturers, Ford Motor Company does not represent that the completed vehicle incorporating the Ford-built components will comply with those requirements. Any ignition system component (i.e.: spark plugs, ignition wiring, coil suppressor assembly, etc.) that is replaced should be replaced by the same Ford Motor Company part number or equivalent to maintain RFI suppression.

While there are currently no RFI regulations in the United States specifically applicable to automotive ignition systems, all Ford Motor Company trucks built with an ignition system use the same or equivalent components to those supplied on Canadian vehicles.

Ford Motor Company recommends that all ignition system service be performed at a Ford authorized service facility to help hold RFI emissions levels to a minimum. Additional RFI information is contained in the “Canadian Vehicles” section of this manual.

Devices that emit radio frequency (RF) energy such as AM/FM radios, mobile telecommunications systems (two-way radios, telephones), and radio controlled security systems are subject to the rules and regulations of the Federal Communications Communication (FCC), including 47 CFR Parts 2 and 15. Any such system installed in a vehicle should comply with those rules and should be installed only by a qualified technician. In addition, to ensure continued compliance with the FCC's regulations, RF devices must not be modified or changed in a manner not expressly approved by Ford Motor Company. RF devices particularly, if not properly installed, may adversely affect the operation of the vehicle. For example, such systems when operated may cause the engine to stumble or stall. In addition, such systems themselves may be damaged or their operation affected by the operation of the vehicle. (Citizens Band [CB] transceivers, garage door openers, and other transmitters whose power output is 5 watts or less, ordinarily will NOT affect vehicle operation.) Because Ford Motor Company has no control over the operation or manufacture of such systems or their installation, Ford Motor Company cannot assume responsibility for any adverse effects or damage if this equipment is used.

Additional guidance for installing two-way mobile radios can be found via the web at www.fordemc.com/docs/download/Mobile_Radio_Guide.pdf.

CALIFORNIA GREEN HOUSE GAS (GHG) REGULATION

The state of California limits refrigerant leakage as determined per SAE J2727 FEB2012 to 11 g/year or 1.5% of the refrigerant capacity per year (whichever is greater) per 17 CCR §95663. This vehicle will conform to the leakage requirement in 17 CCR §95663 if no alterations are made to the vehicle’s air conditioning system as delivered, and no additional air conditioning systems are added. If the vehicle air condition system is modified in any way, or air conditioning systems are added, the final-stage manufacturer must ensure the complete vehicle complies with the requirement in 17 CCR §95663 and report that compliance to the California Air Resources Board. Please reference the vehicle’s ‘Body Builder Layout Book’ for the refrigerant systems leakage information

Ford Motor Company Incomplete Vehicle Manual Supplement for Gulf Cooperation Council Markets

For Gulf Cooperation Council (GCC) markets, the additional GCC Standards Organization (GSO) and Saudi Arabia Standards Organization (SASO) standards information listed below must be considered in addition to the information contained within this Ford Motor Company Incomplete Vehicle Manual (IVM) when determining the ultimate compliance of the completed vehicle in the GCC markets.

The Statements of Conformity section pertaining to Federal Motor Vehicle Safety Standards (FMVSS) for this United States produced vehicle, as identified by the Vehicle Identification Number (VIN) on the front of the Incomplete Vehicle Manual, applies to this vehicle provided that each safety standard number statement is met by the vehicle modifier except where the following GSO and SASO compliance requirements take precedence.

GSO 34 & GSO 35 – Battery: This vehicle, when completed, will conform to GSO 34 and GSO 35 if the battery supplied by Ford Motor Company is not removed, replaced, nor altered.

GSO 36 – Frontal Impact: Vehicles with a Gross Vehicle Weight (GVW) of 4500 kg or less, and with an Unloaded Vehicle Weight (UVW) of 2500 kg or less, will comply to the steering column displacement portion only of GSO 36 if the front structure, front suspension, bumper, frame, powertrain, instrument panel, and steering column supplied by Ford Motor Company are not removed, relocated, altered nor modified. Note, however, that it is the responsibility of the final stage manufacturer to determine the ultimate compliance of the completed vehicle to GSO 36.

GSO 37 – Front and Rear Impact Strength: For vehicles less than 4500 kg GVW, this vehicle will comply to GSO 37 if fuel system and frame components supplied by Ford Motor Company are not removed, relocated, altered nor modified. Note, however, that it is the responsibility of the final stage manufacturer to determine the ultimate compliance of the completed vehicle to GSO 37.

GSO 38 – Side Impact Strength: For vehicles less than 4500 kg GVW, this vehicle will comply to GSO 38 if no alterations, modifications nor replacements are made to doors, surrounding door structure, door hinges, door latches and door strikers supplied by Ford Motor Company. Note, however, that it is the responsibility of the final stage manufacturer to determine the ultimate compliance of the completed vehicle to GSO 38.

GSO 40 – Impact Strength: For vehicles less than 4500 kg GVW, and the applicable sections of GSO 40, this vehicle will comply if the GSO 37 and GSO 38 statements above are followed. Note, however, that it is the responsibility of the final stage manufacturer to determine the ultimate compliance of the completed vehicle to GSO 40.

GSO 42 General Requirements: This vehicle, when completed, will conform to GSO 42 if the original systems supplied by Ford Motor Company such as brakes, control devices, seats, restraints systems, exhaust system, lighting equipment, speedometer, fuel system, electrical system, steering system, suspension system, and the speed warning system are not removed, replaced nor altered. Note, however, that it is the responsibility of the final stage manufacturer to determine the ultimate compliance of the completed vehicle to GSO 42.

GSO 96 & GSO 97 – Safety Belts: This vehicle, when completed, will conform to GSO 96 and GSO 97 if the seat belt assemblies supplied by Ford Motor Company are not removed, replaced nor altered.

GSO 98 – Interior Flammability: Interior components supplied by Ford Motor Company conform to GSO 98 for flammability. Note, however, that it is the responsibility of the final stage manufacturer to ensure that any interior components added or replaced meet the flammability requirements of GSO 98.

GSO 99 – Sound Signaling Devices: This vehicle, when completed, will conform to GSO 99 if the horns supplied by Ford Motor Company are not removed, replaced, altered, nor supplemented.

GSO 135 & GSO 136 – Radiator: This vehicle, when completed, will conform to GSO 135 and GSO 136 if the radiator supplied by Ford Motor Company is not replaced nor altered.

GSO 144, GSO 145 & GSO 146 – Heavy Duty Diesel Emissions, Diesel-Powered Vehicles: This vehicle, when completed, will conform to GSO 144, GSO 145 and GSO 146 provided that the emission control components supplied by Ford Motor Company are not removed, revised, nor modified and that the engine, fuel and exhaust systems are not modified in a manner which may adversely affect emission performance or emission system effectiveness.

GSO 153 – Conformity Certification: In addition to this Incomplete Vehicle Manual, a label has been affixed to the door latch post or door edge of the incomplete vehicle that indicates compliance to all applicable GCC standards at the time of manufacture. Subsequent alteration of the vehicle other than by Ford Motor Company, or damage in transit, may affect the conformity of the incomplete vehicle to those standards. Note, however, that it is the responsibility of the final stage manufacturer to determine the ultimate compliance of the completed vehicle and to provide the GCC authorities with a conformity certificate for the completed vehicle two (2) months prior to importation into the GCC countries. In addition, the final stage manufacturer must also provide a certification label on the completed vehicle stating compliance of the completed vehicle to the applicable GCC standards.

GSO 159 – Motor Vehicle Dimensions & Weights: This incomplete vehicle, as manufactured by Ford Motor Company, conforms to the applicable requirements within GSO 159. Note, however, that it is the responsibility of the final stage manufacturer to determine the ultimate compliance of the completed vehicle to GSO 159.

GSO 290 – Instruction Manual: This incomplete vehicle, as manufactured by Ford Motor Company, conforms to GSO 290. Note that it is the responsibility of the final stage manufacturer to both ensure that the Ford Motor Company English and Arabic Owner Guides are kept with the vehicle and to determine compliance to GSO 290 of any supplemental owner guide provided by that manufacturer.

(Continued next page)

Ford Motor Company Incomplete Vehicle Manual Supplement for Gulf Cooperation Council Markets (Continued)

GSO 421 & GSO 422 – Rear View Mirrors: This vehicle, when completed, will conform to GSO 421 and GSO 422 if the interior and exterior rear view mirrors and their mounts as supplied by Ford Motor Company are not removed, relocated, replaced, nor altered, and any modifications or additions made to the incomplete vehicle do not adversely affect the driver's view to the rear in the outside mirrors along both sides of the vehicle. Conformity to GSO 421 and GSO 422 cannot be determined on incomplete vehicles not equipped with exterior rear view mirrors.

GSO 645, GSO 646 & GSO 647 – Tires & Wheels for Trucks: This vehicle, when completed, will conform to GSO 645, GSO 646 and GSO 647 if the tires supplied by Ford Motor Company are not removed, replaced, nor altered. Note, however, that it is the responsibility of the final stage manufacturer to verify that the tire loading capacity is adequate for the final GVW.

GSO 963 – Ambulances: Ford Motor Company recommends the use of the ambulance prep package when completing a vehicle as an ambulance. Note, however, that it is the responsibility of the final stage manufacturer to determine the ultimate compliance of the completed vehicle to GSO 963.

GSO 1503 – Head Lamps: This incomplete vehicle, as manufactured by Ford Motor Company, conforms to the applicable requirements within GSO 1503. Note, however, that it is the responsibility of the final stage manufacturer to determine the ultimate compliance of the completed vehicle to GSO 1503.

GSO ISO 1585 – Engine Net Power: This vehicle, when completed, will conform to GSO ISO 1585 provided that the emission control components supplied by Ford Motor Company are not removed, revised, nor modified and that the engine, transmission, fuel and exhaust systems are not modified in a manner which may adversely affect engine performance.

GSO 1624 – Noise Emission: This vehicle, when completed, will conform to GSO 1624 if the following items supplied by Ford Motor Company are not removed, replaced, altered nor supplemented: noise shields, engine drive belts, engine PCM, intake manifold, exhaust manifold, engine fans and fan clutches, engine covers, tires, transmission or transmission components, transfer case or transfer case components, muffler, resonator, diffusers, exhaust pipes, catalytic converter, exhaust shields. Note, however, that it is the responsibility of the final stage manufacturer to determine the ultimate compliance of the completed vehicle to GSO 1624.

GSO 1677, GSO ISO 3537 & GSO ISO 3538 – Safety Glazing: This vehicle, when completed, will conform to GSO 1677, GSO ISO 3537 and GSO ISO 3538 provided the safety glazing supplied by Ford Motor Company is not removed, replaced, altered nor supplemented. Note, however, that it is the responsibility of the final stage manufacturer to determine the ultimate compliance of the completed vehicle to GSO 1677, GSO ISO 3537 and GSO ISO 3538.

GSO 1780, GSO 1781 & GSO 1782 – Vehicle Identification Number (VIN): This vehicle, when completed, will conform to GSO 1780, GSO 1781 and GSO 1782 with the safety certification label installed.

GSO 2112, GSO 2113 & GSO 2114 – Front, Side and Rear Underrun: It is the responsibility of the final stage manufacturer to determine compliance of the completed vehicle to GSO 2112, GSO 2113 and GSO 2114.

SASO CITC RI 054 & SASO CITC RI 109 – Radio Frequency Devices: This incomplete vehicle, as manufactured by Ford Motor Company, conforms to the applicable requirements if the radio frequency devices supplied by Ford Motor Company (i.e.: radio, garage door opener, reversing aide, and tire monitoring system) are not removed, replaced, nor altered.

SASO 2857 – Vehicle Tires Rolling Resistance and Wet Grip: This vehicle, when completed, will conform to SASO 2857 if the tires supplied by Ford Motor Company are not removed, replaced, nor altered. Note, however, that it is the responsibility of the final stage manufacturer to verify that the tire loading capacity is adequate for the final GVW.

EMISSION STANDARDS - There are currently no EMC/RFI nor petrol exhaust/evaporative emission standards applicable to GCC countries for vehicles over 3500 kg GVW. Additionally, all petrol-engine vehicles are suitable for operation with unleaded fuel. Diesel emission requirements are addressed in GSO 144, GSO 145 and GSO 146 (above), therefore, the following section of the Incomplete Vehicle Manual does not apply:

- EMISSION CERTIFICATION INFORMATION -- EVAPORATIVE EMISSIONS

FORD BODY BUILDERS LAYOUT BOOK

Throughout this Incomplete Vehicle Manual you will find reference to information found in the Ford Body Builders Layout Books which contain additional design recommendations and specifications provided to assist subsequent stage manufacturers in completing incomplete vehicles. The Ford Body Builders Layout Books can be accessed via the web at https://fordbbas.com under “Publications”.

FORD SERVICE PUBLICATIONS

Many Ford Service Publications pertain to specific model year and vehicle types. Ford Service Publications are available by subscription via the web at www.motorcraft.com. The following publications are a few of many manuals which are available from Helm Incorporated; call: 1-800-782-4356

- Ford Truck Shop Manuals
- Ford Towing Manual
- Ford Electrical & Vacuum Trouble Shooting Manual
- Ford Wiring Diagram

FORD BODY BUILDER ADVISORY SERVICE

The Ford Body Builder Advisory Service may be consulted regarding information contained in this manual via the following methods:

- Call (877) 840-4338
- E-mail via the web at https://fordbbas.com under “Contact Us”.

FORD MOTOR COMPANY
THE AMERICAN ROAD
DEARBORN, MI 48121

FORD MOTOR COMPANY OF CANADA LIMITED
THE CANADIAN ROAD
OAKVILLE, ONTARIO L6J 5E4